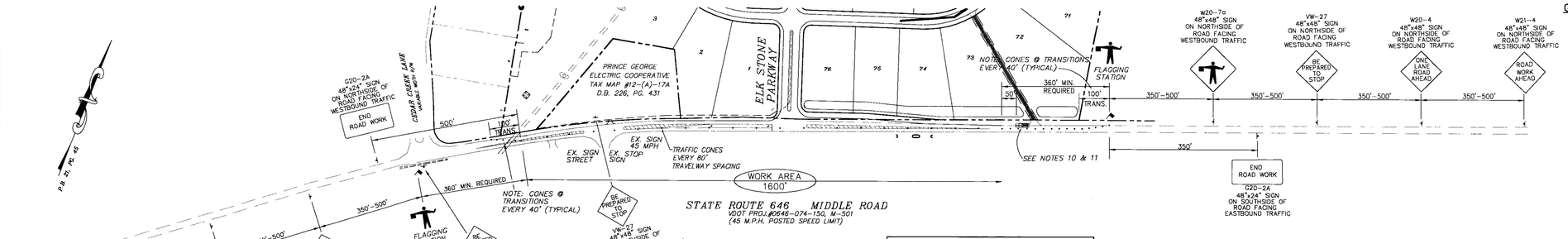
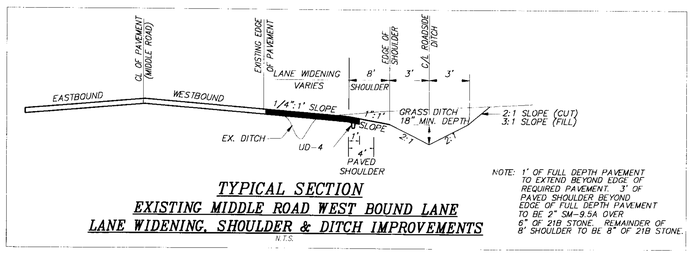


TRAFFIC CONTROL PLAN:
SCALE: 1"=200'



TYPICAL SECTION
EXISTING MIDDLE ROAD WEST BOUND LANE
LANE WIDENING, SHOULDER & DITCH IMPROVEMENTS
N.T.S.

NOTE: 1' OF FULL DEPTH PAVEMENT TO EXTEND BEYOND EDGE OF REQUIRED PAVEMENT. 3' OF PAVED SHOULDER BEYOND EDGE OF FULL DEPTH PAVEMENT TO BE 2" SM-9.5A OVER 6" OF 21B STONE. REMAINDER OF 8' SHOULDER TO BE 8" OF 21B STONE.

TRAFFIC CONTROL DEVICES REMOVAL POLICY

ALL TRAFFIC CONTROL METHODS AND INSTALLATIONS SHALL BE ACCORDING TO THE CURRENT EDITION OF THE VIRGINIA WORK AREA PROTECTION MANUAL AND AS FOLLOWS:

ALL TRAFFIC CONTROL DEVICES SHALL BE REMOVED WHEN NO LONGER NEEDED. WHEN WORK IS SUSPENDED FOR SHORT PERIODS, ADVANCE WARNING SIGNS THAT ARE NO LONGER APPROPRIATE SHALL BE REMOVED FROM THE ROADWAY, AND OTHER IN APPROPRIATE DEVICES REMOVED FROM THE WORK AREA SO THEY ARE NOT VISIBLE TO THE DRIVERS.

WITH THE NEW TESTING REQUIREMENTS (NCHRP 350) FOR TRAFFIC CONTROL DEVICES USED IN WORK ZONES, IT IS TIME TO REEMPHASIZE THESE INSTRUCTIONS. SO THE FOLLOWING IS THE DISTRICT'S STAND ON THIS ISSUE:

- CONES, WHEN NOT REQUIRED, ARE TO BE REMOVED FROM OUR R/W.
- GROUP II DEVICES (DRUMS), WHEN NOT REQUIRED, CAN BE MOVED TO THE SHOULDER IF THEY ARE TO BE USED IN THE SAME AREA WITHIN THREE WORKING DAYS. THIS IS BASED ON THE DIFFICULTY OF THEIR REMOVAL AND REINSTALLATION.
- SIGNS INSTALLED ON PORTABLE STANDS SHALL BE REMOVED FROM THE R/W WHEN NO LONGER REQUIRED, ALONG WITH THE PORTABLE STANDS.
- ARROW BOARDS, WHEN NOT REQUIRED, CAN BE LEFT ON THE SHOULDER IF THEY ARE TO BE USED IN THE SAME AREA WITHIN THREE WORKING DAYS. HOWEVER, THEY ARE TO BE DELINEATED WITH GROUP II DEVICES (DRUMS). *
- VARIABLE MESSAGE SIGNS, WHEN NOT REQUIRED, CAN BE LEFT ON THE SHOULDER IF THEY ARE TO BE USED IN THE SAME AREA WITHIN THREE WORKING DAYS. HOWEVER, THEY ARE TO BE DELINEATED WITH GROUP II DEVICES (DRUMS). *

* THESE DEVICES SHOULD BE REMOVED WHEN NO LONGER REQUIRED IF THE INSTALLATION AND REMOVAL OF THESE DEVICES PRESENT LITTLE DIFFICULTY.

THERE WILL BE TIMES WHEN THESE REQUIREMENTS WILL NOT WORK DUE TO UNUSUAL CIRCUMSTANCES. THESE CIRCUMSTANCES SHOULD BE DISCUSSED WITH THE DISTRICT TRAFFIC ENGINEERING SECTION TO RECEIVE AN EXCEPTION TO THE REQUIREMENTS.

FLAGGING OPERATIONS

1. FLAGGING STATIONS SHALL BE LOCATED FAR ENOUGH IN ADVANCE OF THE WORK ZONE TO PERMIT APPROACHING TRAFFIC TO REDUCE SPEED AND/OR STOP BEFORE PASSING THE WORK ZONE AND ALLOW SUFFICIENT DISTANCE FOR DEPARTING TRAFFIC IN THE LEFT LANE TO RETURN TO THE RIGHT LANE BEFORE REACHING OPPOSING TRAFFIC.
2. WHEN FLAGGING IS DONE AT NIGHT THE FLAGGER STATION SHALL BE ILLUMINATED. AS PER THE 2003 VIRGINIA WORK PROTECTION MANUAL.
3. A SUPPLEMENTAL FLAGGER MAY BE REQUIRED IN THIS AREA TO GIVE ADVANCE WARNING OF THE OPERATION AHEAD BY SLOWING APPROACHING TRAFFIC PRIOR TO REACHING THE FLAGGER STATION OR QUEUED TRAFFIC. IF THE QUEUE OF TRAFFIC REACHES THE "BE PREPARED TO STOP" SIGN, THEN THE SIGNS MUST BE READJUSTED AT GREATER DISTANCES.
4. ALL FLAGGERS MUST BE STATE CERTIFIED AND HAVE THEIR CERTIFICATION CARD IN THEIR POSSESSION WHEN PERFORMING FLAGGIN DUTIES. (SEE SECTION 6E-2, QUALIFICATIONS FOR FLAGGERS).
5. CARE SHOULD BE EXERCISED WHEN ESTABLISHING THE LIMITS OF THE WORK ZONE TO ENSURE MAXIMUM POSSIBLE SIGHT DISTANCE IN ADVANCE OF THE FLAGGER AND TRANSITION, BASED ON THE POSTED SPEED LIMIT, AND AT LEAST EQUAL TO OR GREATER THAN THE VALUES IN APPENDIX A, PAGE A-8.

PAVEMENT MARKING NOTES:

1. ANY EXISTING WHITE EDGE LINE SHALL BE REPLACED IF THE EXISTING LINE IS DAMAGED OR REMOVED IN AREAS OTHER THAN THE DRIVE ENTRANCE. THIS LINE SHOULD LOCATED 1' OFF OF THE EDGE OF PAVEMENT.
2. PAVEMENT MARKINGS WITHIN RIGHT OF WAY ARE TO BE THERMOPLASTIC TYPE B, CLASS I AND SHALL BE APPLIED BY A CONTRACTOR THAT IS ON THE VDOT PRE-APPROVED LIST OF QUALIFIED CONTRACTORS. MODIFICATIONS TO THE PAVEMENT-MARKING PLAN MAY BE MADE IN THE FIELD BY THE VDOT ENGINEER TO BEST-FIT EXISTING CONDITIONS.
3. PAVEMENT MARKING STRIPES AND ARROWS ARE TO BE WHITE UNLESS OTHERWISE INDICATED.

GENERAL NOTES FOR MAINTENANCE OF TRAFFIC

CONTRACTOR NOTES:

1. **ALL STANDARDS AND GUIDELINES OF THE 2003 VIRGINIA WORK PROTECTION MANUAL AND ALL REVISIONS SHALL APPLY TO THESE TRAFFIC CONTROL PLANS. WHILE THESE TRAFFIC CONTROL PLANS AND THE 2003 VIRGINIA WORK AREA PROTECTION MANUAL, AND ALL REVISIONS, PROVIDE GUIDELINES FOR THE DESIGN AND APPLICATION OF TRAFFIC CONTROL DEVICES, THEY ARE NO SUBSTITUTE FOR ENGINEERING JUDGMENT.**
2. ANY CONTRACT ITEM(S) NOT SPECIFICALLY NOTED IN THE SEQUENCE OF CONSTRUCTION MAY BE SCHEDULED FOR CONSTRUCTION AT THE CONTRACTOR'S OPTION, AS APPROVED BY THE ENGINEER.
3. **THE CONTRACTOR SHALL CONTACT THE RESIDENCY OFFICE IN WRITING WITH A WORK SCHEDULE 2 WEEKS BEFORE STARTING WORK.**
4. ALL AREAS EXCAVATED BELOW EXISTING PAVEMENT SURFACE AND WITHIN THE CLEAR ZONE, AT THE CONCLUSION OF EACH WORKDAY, SHALL BE BACKFILLED TO FORM AN APPROXIMATE 6:1 WEDGE, AGAINST THE PAVEMENT SURFACE FOR THE SAFETY AND PROTECTION OF VEHICULAR TRAFFIC. ALL COSTS FOR PLACING, MAINTAINING AND REMOVING THE 6:1 WEDGE SHALL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS IN THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

RICHMOND DISTRICT LANE CLOSURE TIMES ALL ROUTES.

1. **UNLESS OTHERWISE NOTED PER LOCATION IN THE TEMPORARY TRAFFIC CONTROL SHEETS INCLUDED IN THIS CONTRACT, LANES MAY BE CLOSED AS FOLLOWS OR AS DIRECTED BY THE RESIDENCY OFFICE OR ENGINEER.**

SINGLE LANES	7:00 PM - 6:00 AM	MON.-FRI.
SHOULDER	9:00 AM - 4:00 PM	MON.-FRI.
	7:00 PM - 6:00 AM	MON.-FRI.

2. **NO SATURDAY OR SUNDAY CLOSURES UNLESS DIRECTED BY THE RESIDENCY OFFICE OR ENGINEER.**
3. **LANE CLOSURES WILL NOT BE PERMITTED ON HOLIDAYS NOR ON THE DAY BEFORE OR AFTER, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.**

LANE CLOSURE ACTIVITIES:

1. ONE LANE OF TRAFFIC SHALL BE ALLOWED TO ALTERNATE IN EACH DIRECTION AT ALL TIMES ONCE CONSTRUCTION ACTIVITIES HAVE COMMENCED.
2. BOTH LANES OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED EACH DAY WHEN CONSTRUCTION ACTIVITIES HAVE CEASED.
3. TRAFFIC SHALL NOT BE STOPPED ON THE ROADWAYS AND/OR CONNECTOR ROADS FOR LONGER THAN FIVE MINUTES AT ANY TIME, UNLESS OTHERWISE DIRECTED BY THE RESIDENT ENGINEER.
4. **UNDER NO CIRCUMSTANCES WILL CONCURRENT WORK LEFT AND RIGHT OF ANY LANE OF TRAFFIC BE ALLOWED.**
5. ACCESS TO ADJACENT PROPERTIES AND CONNECTING STREETS SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.

SIGNAGE:

1. **THE CONTRACTOR SHALL PROVIDE APPROVED SIGNS AND PORTABLE SIGN STANDS AND ENSURE AN UNRESTRICTED VIEW OF ADVANCE WARNING SIGN MESSAGES FOR SAFETY OF TRAFFIC.**
2. **ALL WORK WITHIN 30 FEET OF THE OUTSIDE EDGE OF PAVEMENT SHALL BE SIGNED.**
3. SIGN SPACING DISTANCE SHOULD BE 500'-800' WHERE THE POSTED SPEED LIMIT IS GREATER THAN 45 MPH, AND 350'-500' WHERE THE POSTED SPEED LIMIT IS 45 MPH OR LESS.
4. WHERE R/W OR GEOMETRIC CONDITIONS PREVENT THE USE OF 48"x48" SIGNS, 36"x36" SIGNS MAY BE USED.

NIGHTWORK:

1. **A PORTABLE CHANGEABLE MESSAGE SIGN SHOULD BE USED TO PROVIDE NOTICE OF WORK OPERATIONS FOR NIGHT WORK.**
2. **FLOODLIGHTS SHALL BE USED WHERE EXISTING LIGHT IS NOT ADEQUATE TO PERFORM THE WORK SAFELY. IN NO CASE SHALL FLOODLIGHTS BE PERMITTED TO CREATE A DISABLING GLARE FOR DRIVERS.**
3. **OPERATIONS CONDUCTED AT NIGHT OFTEN REQUIRE ADDITIONAL LIGHTING TO SUFFICIENTLY ILLUMINATE THE WORK AREA IN THE TEMPORARY TRAFFIC CONTROL ZONE. LIGHTING SHALL BE ARRANGED SO AS NOT TO INTERFERE WITH OR IMPEDE TRAFFIC APPROACHING THE WORK AREA IN EITHER DIRECTION.**
4. **DURING NIGHT TIME OPERATIONS, ALL VEHICLES ENTERING AND EXITING THE WORK AREA SHOULD BE EQUIPPED WITH AND HAVE OPERATING AT LEAST ONE ROTATING AMBER LIGHT OR HIGH INTENSITY AMBER STROBE LIGHT.**

WORK ZONE VEHICLE REQUIREMENTS:

1. A TRUCK WITH AT LEAST ONE ROTATING AMBER LIGHT OR HIGH INTENSITY AMBER STROBE LIGHT SHALL BE PARKED 50' TO 100' IN ADVANCE OF THE FIRST WORK CREW. THE ROTATING AMBER LIGHT CAN BE EITHER TRUCK OR TRAILER MOUNTED BUT MUST BE RELOCATED OUT OF THE ROAD (PREFERABLY WITHIN BRICKHOUSE LANDING) AT THE END OF EACH WORK PERIOD. RELOCATION TO THE SHOULDER IS PROHIBITED.
2. TRUCK MOUNTED ATTENUATORS SHALL BE INSTALLED (IN FULL LOCK DOWN POSITION) ON ALL ADVANCE WARNING VEHICLES LOCATED WITHIN THE RIGHT OF WAY. THE VEHICLE PARKING BRAKE SHALL BE SET WITH THE FRONT WHEELS TURNED FOR "AFTER-IMPACT PROJECTORY" INTO A SAFE AREA. THE TMA VEHICLE SHALL NOT BE USED AS WORK VEHICLE. ANY MATERIAL AND/OR EQUIPMENT ON THE TMA VEHICLE SHALL BE PROPERLY SECURED TO PREVENT SPILLAGE IF STRUCK BY A VEHICLE.
3. VEHICLE WARNING LIGHTS:
   WARNING LIGHTS ON VEHICLES SHOULD BE MOUNTED AS TO BE VIEWED 360 DEGREES ON VEHICLES WITHOUT ARROW PANELS, AND 180 DEGREES ON VEHICLES WITH ARROW PANELS, AND SHALL MEET THE FOLLOWING CRITERIA:

   ROTATING AMBER LIGHTS:
   ROTATING AMBER LIGHTS SHALL CONSIST OF A MIMIMUM OF TWO HALOGEN SEALED BEAMS ENCLOSED WITHIN AN AMBER COLORED DOME. SEALED BEAMS SHALL BE AT LEAST 60,000 CANDLEPOWER AND SHALL HAVE A FLASH RATE OF 80 TO 100 FLASHES PER MINUTE. ROTATING LIGHTS SHALL BE APPROXIMATELY 8-1/2 INCHES OR GREATER IN DIAMETER AND HEIGHT (6 INCHES IN HEIGHT FOR MULTI-LIGHT BARS).

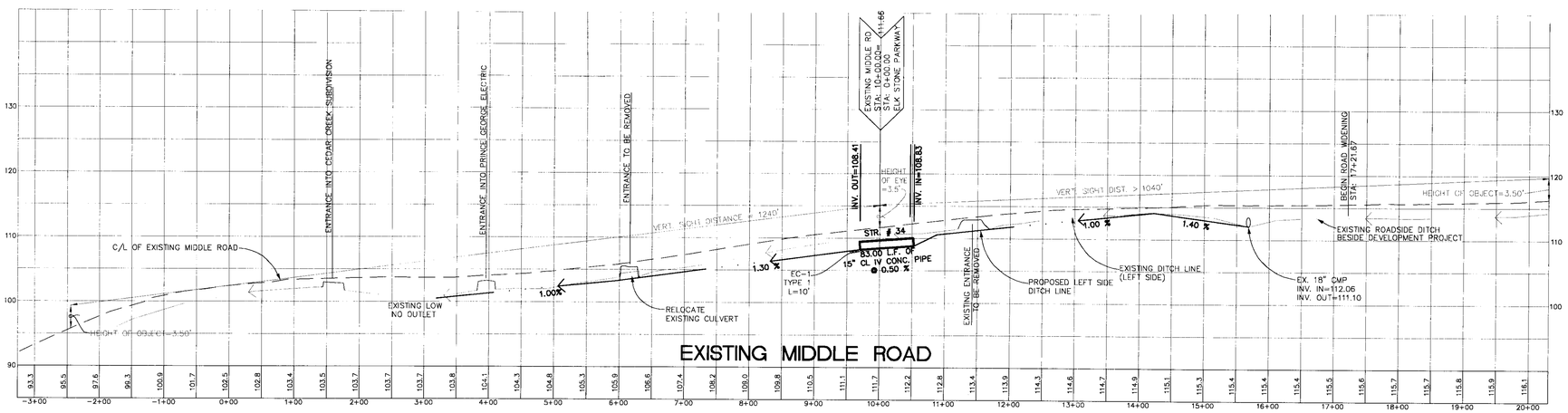
   HIGH INTENSITY AMBER STROBE LIGHTS:
   HIGH INTENSITY AMBER STROBE LIGHTS SHALL CONSIST OF A DOUBLE FLASH UNIT ENCLOSED WITHIN AN AMBER COLORED LENS. FLASH RATE SHALL BE 80 ± 10 FLASHES PER MINUTE. STROBE LIGHTS SHALL BE APPROXIMATELY 6-5/8 INCHES IN DIAMETER AND 7-1/2 INCHES IN HEIGHT OR GREATER.

CHANNELING DEVICES:

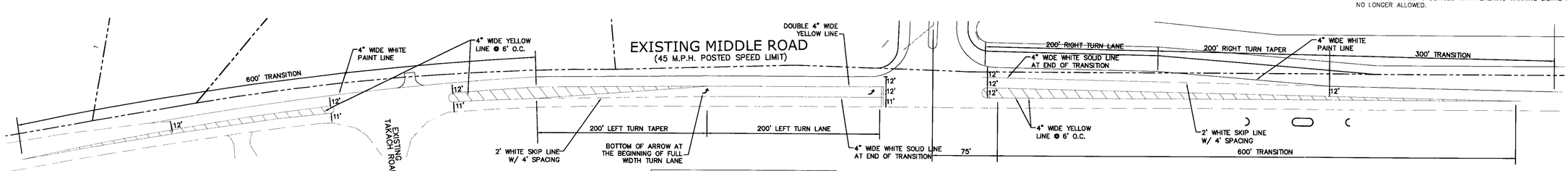
1. CONE SPACING SHALL BE AT THE FOLLOWING:

LOCATION	SPEED (MPH) 0-35	35 +
TRANSITION SPACING	20'	40'
TRANSITION SPACING	40'	80'

2. **CONES MAY BE USED IN AREAS WHERE PERSONNEL WILL BE PRESENT TO ENSURE THEIR PROPER ALIGNMENT; GROUP II DRUMS SHALL BE REQUIRED WHEN THE WORK ZONE IS UNMANNED.**
3. TRAFFIC CONES SHALL BE PLACED WITH 40' SPACING WITHIN TRANSITION AND 80' SPACING ALONG TRAVEL WAY PRIOR TO BEGINNING CONSTRUCTION. ALL TRAFFIC CONES SHALL BE RELOCATED TO THE EXISTING EDGE OF PAVEMENT AT THE END OF EACH WORK DAY TO PERMIT TRAFFIC FLOW THROUGH NORTHBOUND LANE AFTER WORKING HOURS.
4. GROUP II CHANNELING DEVICES WITH FLASHING WARNING LIGHTS ARE NO LONGER ALLOWED.



PROFILE
SCALE: HORIZONTAL: 1"=100'
VERTICAL: 1"=10'



PAVEMENT MARKING PLAN:
SCALE: 1"=60'

COMMONWEALTH OF VIRGINIA
DERRICK A. JOHNSON
Lic No 24761
2-8-08
PROFESSIONAL ENGINEER

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DATE	REVISION DESCRIPTION
10-27-2003	COUNTY & VDOT COMMENTS
01-15-2004	COUNTY & VDOT COMMENTS
07-31-2007	COUNTY COMMENTS
02-08-08	COUNTY COMMENTS

DATE	07-10-2003
DRAWN BY	L. GILLIAM
DESIGNED BY	D. JOHNSON
CHECKED BY	D. JOHNSON
SCALE	AS SHOWN

TIMMONS GROUP

BRICKHOUSE LANDING SUBDIVISION

BLAND DISTRICT * PRINCE GEORGE COUNTY, VIRGINIA

PAVEMENT MARKING & TRAFFIC CONTROL PLAN

JOB NO.	20823
SHEET NO.	15

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