GENERAL NOTES

1. PROJECT CATEGORY (MINIMUM TMP REQUIREMENTS):
   - A. THIS WILL BE A CATEGORY A PROJECT (MINIMAL LEVEL OF CONSTRUCTION).
     - a. THIS WILL BE PERMITTED WORK.
     - b. THIS PROJECT WILL INVOLVE TRAFFIC CONTROL DEVICES, SHOULDER CLOSURES, AND LANE CLOSURES TO ENSURE SAFE TRAVEL AROUND THE WORK ZONES.
     - c. ALL WORK REQUIRING SHOULDER CLOSURE SHALL BE PERFORMED BETWEEN THE HOURS OF 7AM – 7:00PM MONDAY – FRIDAY.
     - d. ALL WORK REQUIRING LANE CLOSURE SHALL BE PERFORMED BETWEEN THE HOURS OF 9AM – 3PM MONDAY – FRIDAY.
     - e. BETWEEN MEMORIAL DAY AND LABOR DAY, THERE SHALL BE NO LANE CLOSURES BETWEEN THE HOURS OF 6AM TO 8:30AM AND 3:30PM TO 6PM, AND THERE WILL BE NO LANE CLOSURES AFTER NOON ON FRIDAYS. BETWEEN LABOR DAY AND MEMORIAL DAY, THE CONTRACTOR SHALL COORDINATE ANY LANE CLOSURES DIRECTLY WITH VDOT.
     - f. VDOT MUST BE NOTIFIED WITHIN 48 HOURS OF THE BEGINNING OF WORK AND PRIOR TO ANY PROPOSED LANE CLOSURE.
2. TEMPORARY TRAFFIC CONTROL PLAN:
   - A. THE MAJOR COMPONENTS WILL CONSIST OF GENERAL NOTES, TYPICAL SECTIONS, AND SPECIAL DETAILS AS NECESSARY.
   - B. TRAFFIC CONTROL DEVICES SHALL BE USED AS SHOWN ON SUBMITTED TRAFFIC CONTROL PLAN.
   - C. ALL SIGNS, STRIPING, AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH VIRGINIA'S WORK AREA PROTECTION MANUAL AND MUTCD STANDARDS.
3. PUBLIC COMMUNICATION PLAN:
   - A. SALEM TRAFFIC OPERATIONS CENTER (540) 378–5096 *THE TOC SHALL BE NOTIFIED OF PROPOSED LANE CLOSURES AT THE BEGINNING AND END OF EACH WORK DAY.
   - B. COUNTY OF FRANKLIN
     - a. FRANKLIN COUNTY POLICE (540) 483–3000
     - b. FRANKLIN COUNTY PUBLIC SAFETY – (540) 483–3091
     - c. FRANKLIN COUNTY SCHOOLS – (540) 483–5138
     - d. FRANKLIN COUNTY BOARD OF SUPERVISORS ADMINISTRATOR OFFICE (540) 483–3032
   - C. VIRGINIA STATE POLICE (540) 483–3054
4. DIVISION 2 CONTRACTOR SHALL OBTAIN A LETTER FROM THE VDOT BRIDGE CONTRACTOR (DLB) AUTHORIZING THE DIVISION 2 CONTRACTOR TO WORK WITHIN THE VDOT WORK ZONE FOR THE BRIDGE.

MAINTENANCE OF TRAFFIC NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING A TRAFFIC CONTROL PLAN TO VDOT BASED ON METHODS OF CONSTRUCTION THAT WILL BE UTILIZED. IT IS NOT THE INTENT OF THE TRAFFIC CONTROL PLAN TO ENUMERATE EVERY DETAIL WHICH MUST BE CONSIDERED IN THE CONSTRUCTION OF EACH WORK ZONE, BUT ONLY TO SHOW THE GENERAL FEATURES NECESSARY TO PROVIDE FOR PROPER HANDLING OF TRAFFIC. THE CONSTRUCTION TECHNIQUES ULTIMATELY EMPLOYED BY THE CONTRACTOR ARE TO BE APPROVED BY VDOT. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE FOR SAFE TRAVEL AROUND THE WORK ZONES.
2. CONTRACTOR SHALL SHOW EACH MAIN WORK ZONE ON TRAFFIC CONTROL PLAN AND DESCRIBE EXTENT OF LANE CLOSURE IN ACCORDANCE WITH TYPICAL TRAFFIC CONTROL NOTES SHOWN ON THIS SHEET.
3. CONTRACTOR WILL BE REQUIRED TO OBTAIN A VDOT LAND USE PERMIT PRIOR TO PERFORMING ANY WORK WITHIN VDOT RIGHTS–OF–WAY.
4. CONTRACTOR SHALL CONTACT THE VDOT REPRESENTATIVE IN WRITING WITH A WORK SCHEDULE 2 WEEKS BEFORE STARTING WORK. THE VDOT REPRESENTATIVE WILL DETERMINE IF POLICE PATROL IS NECESSARY FOR TRAFFIC CONTROL.
5. CONTRACTOR SHALL COORDINATE THE SEQUENCE OF CONSTRUCTION WITH VDOT.
6. SIGN SPACING MAY BE ADJUSTED TO FIT FIELD CONDITIONS WITH VDOT APPROVAL.
7. ALL PAVEMENT MARKINGS CONFLICTING WITH TRAFFIC PATTERNS SHALL BE ERADICATED AND RESTRIPED AS NECESSARY.
8. WHEN WORK IS NOT BEING PERFORMED, THE CLEAR ZONE OF THE ROADWAY SHALL BE FREE OF STORED MATERIALS AND PARKED EQUIPMENT.
9. ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH THE MUTCD (LATEST EDITION), THE VIRGINIA WORK AREA PROTECTION MANUAL (LATEST EDITION), AND AS DIRECTED BY VDOT AND SHALL COMPLY WITH ALL REGULATIONS PROVIDED IN THE ENTRANCE PERMIT.
10. SAFE ACCESS TO ALL EXISTING PUBLIC ROADWAYS SHALL BE MAINTAINED AT ALL TIMES.
11. CONSTRUCTION WORK AFTER DARK SHALL OCCUR WITH FLOODLIGHTS BEING UTILIZED WHERE EXISTING LIGHT IS NOT ADEQUATE. THE FLOODLIGHTS SHALL NOT CREATE A DISTRACTING GLARE TO ADJACENT DRIVERS.
12. ALL FLAGGERS SHALL BE STATE CERTIFIED AND HAVE THEIR CERTIFICATION CARD IN THEIR POSSESSION WHEN PERFORMING FLAGGING DUTIES.
13. A TRUCK WITH AN ARROW BOARD OPERATING IN THE CAUTION MODE SHALL BE PARKED 50' TO 100' IN ADVANCE OF THE FIRST WORK CREW. WHEN THE POSTED SPEED LIMIT IS 45 MPH OR GREATER, A TRUCK–MOUNTED ATTENUATOR SHALL BE USED.
14. CHANNELIZING DEVICES SUCH AS CONES OR BARRELS SHALL BE UTILIZED WHERE REQUIRED AND FOLLOW THE VIRGINIA WORK AREA PROTECTION MANUAL (LATEST EDITION).
15. CONTRACTOR SHALL MAINTAIN ALL EXISTING ROADWAY SIGNAGE DURING ALL PHASES OF THIS PROJECT.

Typical Traffic Control
Stationary Operation on a Shoulder
(Figure TTC-4.0)
NOTES

Standard

1. **For long-term stationary work (more than 3 days) on divided highways having a median wider than 8', sign assemblies on both sides of the roadway shall be required as shown (ROAD WORK AHEAD (W20-1), RIGHT SHOULDER CLOSED AHEAD (W21-5bR)), even though only one shoulder is being closed. For operations less than 3 days in duration, sign assemblies will only be required on the side where the shoulder is being closed and a RIGHT SHOULDER CLOSED AHEAD (W21-5bR) sign shall be added to that side.**

Guidance

2. *Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign spacing 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.*

Option:

3. The SHOULDER WORK (W21-5) sign on an intersecting roadway may be omitted where drivers emerging from that roadway will encounter another advance warning sign prior to this activity area.
4. For short duration operations of 1 hour or less, all signs and channelizing devices may be eliminated if a vehicle with activated high-intensity amber rotating, flashing, oscillating, or strobe lights is used.

Standard:

5. **Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, oscillating, or strobe lights. Vehicle hazard warning signals can be used to supplement high-intensity amber rotating, flashing, oscillating, or strobe lights.**
6. **Taper length (L) and channelizing device spacing shall be at the following:**

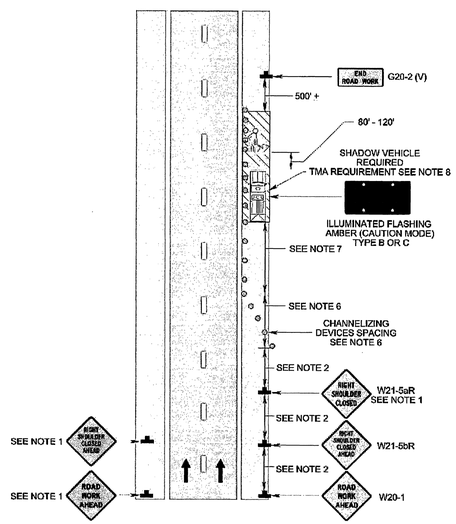
Taper Length (L)				
Speed Limit (mph)	Lane Width (Feet)			
	9	10	11	12
25	95	105	115	125
30	135	150	165	180
35	185	205	225	245
40	240	270	295	320
45	405	450	495	540
50	450	500	550	600
55	495	550	605	660
60	540	600	660	720
65	585	650	715	780
70	630	700	770	840
Minimum taper lengths for Limited Access highways shall be 1000 feet.				
Shoulder Taper = ⅓ L Minimum				

Channelizing Device Spacing		
Location	Speed Limit (mph)	
	0 - 35	36 +
Transition Spacing	20'	40'
Travelway Spacing	40'	80'
Construction Access*	80'	120'
* Spacing may be increased to this distance, but shall not exceed one access per ¼ mile.		

On roadways with paved shoulders having a width of 8 feet or more, channelizing devices shall be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the traveled way.

7. **The buffer space length shall be as shown in Table 6H-3 on Page 6H-5 for the posted speed limit.**
8. **A shadow vehicle shall be used whenever a person is required to operate equipment mounted on or in the work vehicle such as buckets, augers, post drivers, etc. For work operations on the shoulder with a duration greater than 1 hour where workers are present, a shadow vehicle shall be used. A truck-mounted attenuator (TMA) shall be used on the shadow vehicle on Limited Access highways and multi-lane roadways with posted speed limit equal to or greater than 45 mph.**
9. **When a side road intersects the highway within the temporary traffic control zone, additional traffic control devices shall be placed as needed.**

Stationary Operation on a Shoulder
(Figure TTC-4.0)



Typical Traffic Control
Shoulder Operation with Minor Encroachment
(Figure TTC-5.0)
NOTES

Standard

1. **On divided highways having a median wider than 8', right and left sign assemblies shall be required. See Note 1, TTC-4 for addition sign information.**

Guidance

2. *Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign spacing 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.*
3. *When work takes up part of a lane on a high volume roadway; vehicular traffic volumes, vehicle mix, speed and capacity should be analyzed to determine whether the affected lane should be closed. Unless the lane encroachment analysis permits a remaining lane width of 10 feet, the lane should be closed. If the closure operation is on a Limited Access highway, the minimum lane width is 11 feet.*

Option:

4. The ROAD WORK AHEAD (W20-1) sign on an intersecting roadway may be omitted where drivers emerging from that roadway will encounter another advance warning sign prior to this activity area.

Standard:

5. **A shadow vehicle with either an arrow board operating in the caution mode, or at least one high-intensity amber rotating, flashing, oscillating, or strobe light shall be parked 80' - 120' in advance of the first work crew.**
6. **Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, oscillating, or strobe lights. Vehicle hazard warning signals can be used to supplement high-intensity amber rotating, flashing, oscillating, or strobe lights.**
7. **Taper length (L) and channelizing device spacing shall be at the following:**

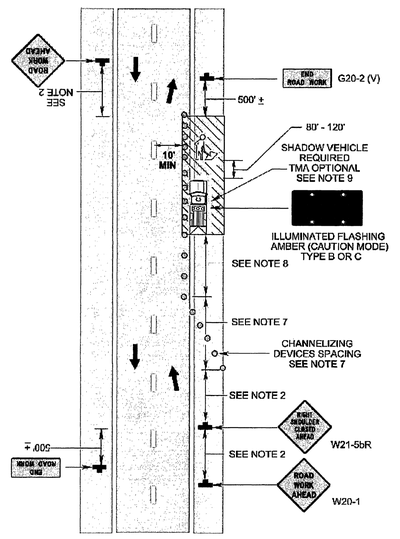
Taper Length (L)				
Speed Limit (mph)	Lane Width (Feet)			
	9	10	11	12
25	95	105	115	125
30	135	150	165	180
35	185	205	225	245
40	240	270	295	320
45	405	450	495	540
50	450	500	550	600
55	495	550	605	660
60	540	600	660	720
65	585	650	715	780
70	630	700	770	840
Minimum taper lengths for Limited Access highways shall be 1000 feet.				
Shoulder Taper = ⅓ L Minimum				

Channelizing Device Spacing		
Location	Speed Limit (mph)	
	0 - 35	36 +
Transition Spacing	20'	40'
Travelway Spacing	40'	80'
Construction Access*	80'	120'
* Spacing may be increased to this distance, but shall not exceed one access per ¼ mile.		

On roadways with paved shoulders having a width of 8 feet or more, channelizing devices shall be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the traveled way.

8. **The buffer space length shall be as shown in Table 6H-3 on Page 6H-5 for the posted speed limit.**
9. **A truck-mounted attenuator (TMA) shall be used on Limited Access highways and multi-lane roadways with posted speed limit equal to or greater than 45 mph.**
10. **When a side road intersects the highway within the temporary traffic control zone, additional traffic control devices shall be placed as needed.**

Shoulder Operation with Minor Encroachment
(Figure TTC-5.0)



Typical Traffic Control
Lane Closure on a Two-Lane Roadway Using Flaggers
(Figure TTC-23.0)
NOTES

Guidance:

1. *Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, and 500'-800' where the posted speed limit is greater than 45 mph.*
2. *Care should be exercised when establishing the limits of the work zone to insure maximum possible sight distance in advance of the flagger station and transition, based on the posted speed limit and at least equal to or greater than the values in Table 6H-3. Generally speaking, motorists should have a clear line of sight from the graphic flagger symbol sign to the flagger.*

Option:

3. Where Right-of-Way or geometric conditions prevent the use of 48" x 48" signs, 36" x 36" signs may be used.

Standard:

4. **Flagging stations shall be located far enough in advance of the work space to permit approaching traffic to reduce speed and/or stop before passing the work space and allow sufficient distance for departing traffic in the left lane to return to the right lane before reaching opposing traffic (see Table 6H-3 on Page 6H-5).**
5. **All flaggers shall be state certified and have their certification card in their possession when performing flagging duties (see Section 6E.01, Qualifications for Flaggers).**
6. **Cone spacing shall be at the following:**

Location	Posted Speed Limit (mph)	
	0 – 35	36 +
Transition Spacing	20'	40'
Travelway Spacing	40'	80'

7. **A shadow vehicle with at least one high intensity amber rotating, oscillating, or strobe light shall be parked 80'-120' in advance of the first work crew.**

Option:

8. 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.

Guidance:

9. *If the queue of traffic reaches the BE PREPARED TO STOP (W3-4) sign, then the signs should be readjusted at greater distances.*
10. *When a highway-rail crossing exists within or upstream of the transition area and it is anticipated that queues resulting from the lane closure might extend through the highway-rail grade crossing, the temporary traffic control zone should be extended so that the transition area precedes the highway-rail crossing (see Figure TTC-56 for additional information on highway-rail crossings).*

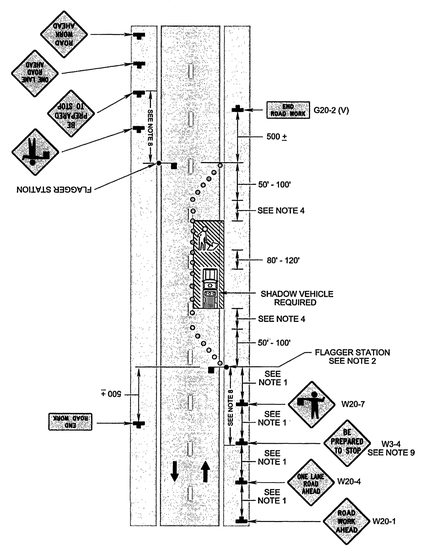
Standard:

11. **At night, flagger stations shall be illuminated, except in emergencies (see Section 6E.08).**

Option:

12. Cones may be eliminated when using a pilot vehicle operation or when the total roadway width is 20 feet or less.
13. For low-volume situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger, positioned to be visible to road users approaching from both directions, may be used (see Chapter 6E).

Lane Closure on a Two-Lane Roadway Using Flaggers
(Figure TTC-23.0)



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FRANKLIN COUNTY / WESTERN VIRGINIA WATER AUTHORITY
BURNT CHIMNEY WATER EXTENSION
FRANKLIN COUNTY, VIRGINIA

TRAFFIC CONTROL NOTES

DOCUMENT NO. 30337 – 002
SHEET 5 OF 44