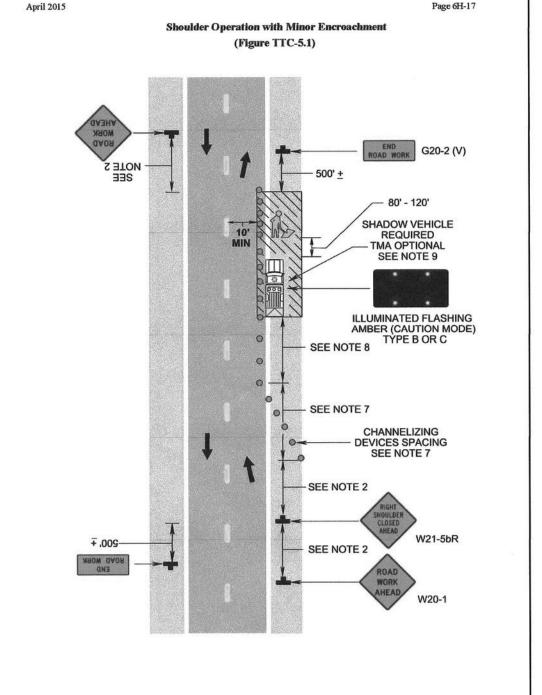
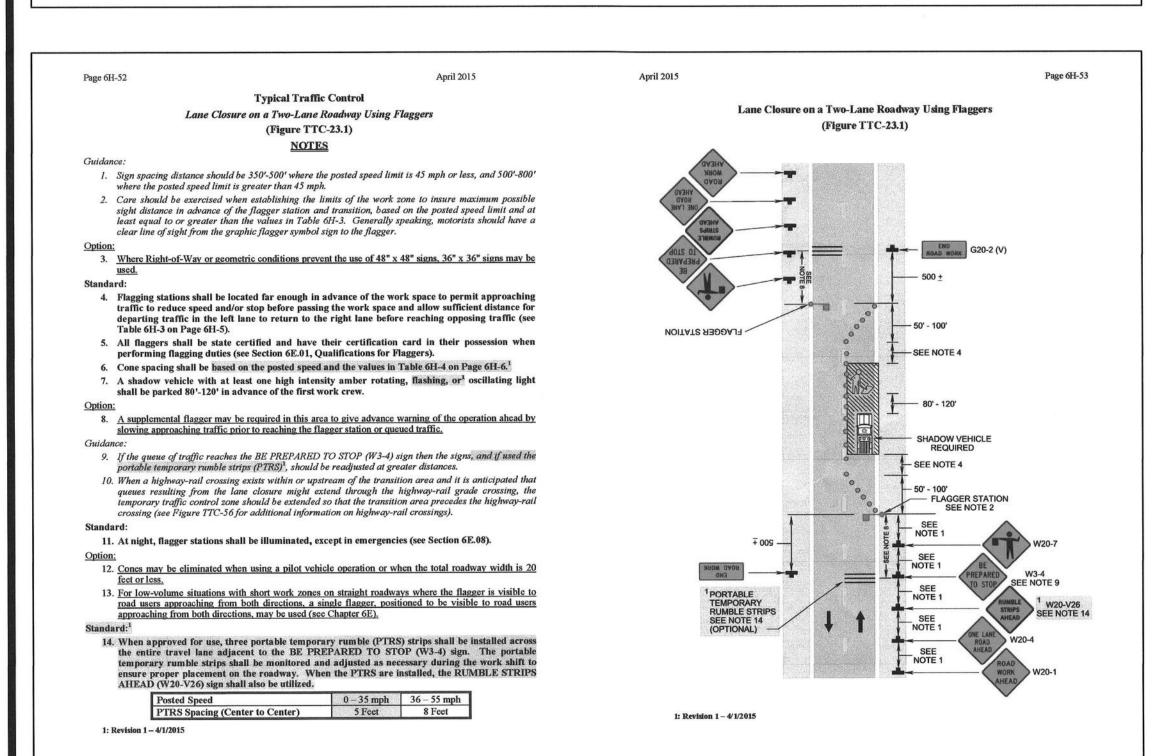
# 1. For required sign assemblies for multi-lane roadways see Note 1, TTC-4.1

- 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.
- 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.
- 5. A shadow vehicle with either an arrow board operating in the caution mode, or at least one highintensity amber rotating, flashing, or oscillating light shall be parked 80' - 120' in advance of the
- 6. Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, or oscillating lights. Vehicle hazard warning signals can be used to supplement
- high-intensity amber rotating, flashing, or oscillating lights.

Taper Length (L)							
Speed Limit (mph)	Lane Width (Feet)						
	9	10	11	12	L		
25	95	105	115	125	Transitio		
30	135	150	165	180	Travelwa		
35	185	205	225	245	Constru		
40	240	270	295	320	* Spac		
45	405	450	495	540	but sh		
50	450	500	550	600	On road width of shall be		
55	495	550	605	660			
60	540	600	660	720	advance		
65	585	650	715	780	vehicula		
70	630	700	770	840	way.		
Minimum tape	er length			ccess			
Shoulde	r Taper	= 1/3 L N	//////////////////////////////////////				

- feet or more, channelizing device used to close the shoulder in
- 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. 1: Revision 1 - 4/1/2015





# TYPICAL APPLICATIONS OF TEMPORARY TRAFFIC CONTROL AS GIVEN IN THE VIRGINIA WORK AREA PROTECTION MANUAL

# MAINTENANCE OF TRAFFIC NOTES

- DURING CONSTRUCTION, CONTRACTOR SHALL LIMIT DISRUPTION TO RESIDENTIAL ACCESS DRIVEWAYS, COORDINATE CONSTRUCTION ACTIVITIES THAT MAY AFFECT DRIVEWAYS WITH THE PROPERTY OWNER, AND PROVIDE OWNER WITH ACCESS BY END OF WORK DAY OR SOONER AS
- ALL STANDARDS AND GUIDELINES OF THE VIRGINIA WORK AREA PROTECTION MANUAL (VWAPM) SHALL APPLY TO ANY TRAFFIC CONTROL MEASURES INCLUDING, BUT NOT LIMITED TO, ALL DEVICES, METHODS, AND DIMENSIONS.
- CONTRACTOR SHALL PROVIDE WARNING SIGNS, AND APPROVED PORTABLE SIGN STANDS AND INSURE AN UNRESTRICTED VIEW OF ADVANCE
- WARNING SIGN MESSAGES FOR SAFETY OF TRAFFIC AND IN ACCORDANCE WITH THE VWAPM. ALL WORK WITHIN THE RIGHT-OF-WAY SHALL BE APPROPRIATELY SIGNED REGARDLESS OF WHETHER A LANE OR SHOULDER CLOSURE IS
- DURING LANE CLOSURES, CONTRACTOR SHALL USE AT LEAST 2 FLAGMEN AT ALL TIMES AND IN ACCORDANCE WITH THE VWAPM. CONES MAY BE USED IN AREAS WHERE PERSONNEL WILL BE PRESENT TO INSURE THEIR PROPER ALIGNMENT; GROUP II DRUMS SHALL BE REQUIRED WHEN THE WORK ZONE IS UNMANNED. ALL CONES SHALL BE A MINIMUM OF 36" IN HEIGHT AND PLACED IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE VWAPM.
- ALL TRAFFIC CONTROL EQUIPMENT AND OBJECTS SHALL MEET NCHRP 350 CRASH TESTING CRITERIA.
- THESE NOTES ARE PROVIDED AS GUIDELINES ONLY. THE CONTRACTOR SHALL PREPARE A SPECIFIC TRAFFIC CONTROL PLAN THAT MATCHES HIS PLANNED OPERATIONS AND PROJECT SEQUENCING.

# **COMMUNICATION NOTES**

- THE CONTRACTOR SHALL ADVISE THE CITY OF ROANOKE TRANSPORTATION DEPARTMENT OF PLANNED LANE CLOSURES A MINIMUM OF 72
- HOURS IN ADVANCE OF PLANNED LANE CLOSURE. THE CONTRACTOR SHOULD IMMEDIATELY NOTIFY 911 FOR ANY EMERGENCY.
- IF AN EMERGENCY IS TRAFFIC RELATED, THE CITY OF ROANOKE TRANSPORTATION DEPARTMENT, OR HIS DESIGNEE SHOULD BE NOTIFIED IMMEDIATELY AFTER CALLING 911.

# TABLE: PRESSURE AND METER TYPE FOR SERVICE

TAX MAP	DDEDEDTY ADDDESS	APPROX. METER	METER
NUMBER 5480401	PROPERTY ADDRESS	PRESSURE (psi)	TYPE
5470201	4210 Griffin Road, S.W. 4247 Griffin Road, S.W.	103	2
5470202	4237 Griffin Road, S.W.	86	2
5470203	4263 Griffin Road, S.W.	83	2
5470204	4305 Griffin Road, S.W.	78	3
5470205	4313 Griffin Road, S.W.	75	3
5470206	4323 Griffin Road, S.W.	73	3
5470504	0 Griffin Road, S.W.	88	D
5470505	0 Griffin Road, S.W.	88	D
5470415	0 Griffin Road, S.W.	78	2
5470414	4320 Griffin Road, S.W.	68	2
5470413	0 Griffin Road, S.W.	66	2
5470412	4334 Griffin Road, S.W.	63	2
5470411	0 Griffin Road, S.W.	59	2
5470410	4350 Griffin Road, S.W.	52	D
5470409	0 Griffin Road, S.W.	52	D
5470408	4372 Griffin Road, S.W.	49	2
5470401	4323 Bristol Road, S.W.	63	2
5470402	4322 Bristol Road, S.W.	50	2
5470404	4351 Bristol Road, S.W.	34	2
5470405	4367 Bristol Road, S.W.	31	2
5470406	O Bristol Road, S.W.	28	D
5470407	O Bristol Road, S.W.	28	D
5470506	4318 Bristol Road, S.W.	74	2
5470526	O Bristol Road, S.W.	60	2
5470525	4332 Bristol Road, S.W.	54	2
5470524	O Bristol Road, S.W.	41	D
5470523	O Bristol Road, S.W.	41	D
5470522	O Bristol Road, S.W.	30	2
5470521	4364 Bristol Road, S.W.	28	D
5470520	4372 Bristol Road, S.W.	28	D
5470507	0 Joplin Road, S.W.	65	2
5470508	4233 Joplin Road, S.W.	65	2
5470509	4243 Joplin Road, S.W.	65	2
5470510	4251 Joplin Road, S.W.	66	2
5470511	4259 Joplin Road, S.W.	61	D
5470512	4267 Joplin Road, S.W.	61	D
5470513	4297 Joplin Road, S.W.	72	2
5470601	4228 Joplin Road, S.W.	68	2
5470602	4244 Joplin Road, S.W.	68	2
5470603	4252 Joplin Road, S.W.	65	2
5470604	4260 Joplin Road, S.W.	65	2
5470605	4268 Joplin Road, S.W.	70	2
5470712	4404 Van Winkle Road, S.W.	47	2
5470711	4384 Van Winkle Road, S.W.	41	2
5470710	4374 Van Winkle Road, S.W.	36	2
5470709	4366 Van Winkle Road, S.W.	36	2
5470708	4356 Van Winkle Road, S.W.	38	2
5470707	4350 Van Winkle Road, S.W.	40	2
5470705	4336 Van Winkle Road, S.W.	45	2
5470703	4306 Van Winkle Road, S.W.	69	2
5470702	0 Van Winkle Road, S.W.	76	2
5470701	0 Van Winkle Road, S.W.	81	2
5470519	0 Van Winkle Road, S.W.	37	D
5470518	0 Van Winkle Road, S.W.	37	D
5470517	0 Van Winkle Road, S.W.	41	2
5470516	4339 Van Winkle Road, S.W.	48	2
5470515	0 Van Winkle Road, S.W.	53	2
5470514	4305 Van Winkle Road, S.W.	71	2
5480340	4215 Roy Drive, S.W.	74	2
5480339	0 Roy Drive, S.W.	72	S
5480338	4233 Roy Drive, S.W.	65	2
5480337	0 Roy Drive, S.W.	62	2
5480121	0 Griffin Road, S.W.	72	2
5480122	4220 Roy Drive, S.W.	70	2
5480107	0 Roy Drive, S.W.	60	

ABOVE PRESSURES ARE STATIC BASED ON HGL AT ELEVATION 1410

Storm

RIM

1144.38

GRATE

1212.16

Existing

D-2 Curb Inlet 1148.70'

D-2a Curb Inlet 1148.62'

**DMH** 

# STRUCTURE

D-2b Drop Inlet

D-2c Drop Inlet

D-3 15" RCP

D-4 15" CMP

D-5 12" RCP

D-6 | 15" STL

D-7 12" RCP

D-8 12" RCP

D-10 | 12" CMP

D-11 12" RCP

D-12 | 18" RCP

D-13 18" RCP

D-14 18" RCP

D-15 | 12" RCP

D-16 | 15" RCP

D-17 24" CMP

D-18 15" CMP

D-19 36" RCP

D-20 15" CMP

D-21 12" CMP

D-22 Drop Inlet

D-23 | 15" RCP

D-24 15" RCP

D-25 | 15" CMP

D-26 | 15" CPP

12" RCP

D-9

S - DENOTES SINGLE METER SETTER, D - DENOTES DOUBLE METER SETTER

Drainage

INV.OUT

INV.IN

1189.17' (15" RCP) | 1192.26' (15" RCP)

1207.11' (15" CMP) | 1208.79' (15" CMP)

1218.00' (12" RCP) | 1222.99' (12" RCP)

1220.08' (15" STL) | 1223.73' (15" STL)

1240.40' (12" RCP) | 1242.06' (12" RCP)

1243.27' (12: RCP) | 1244.61' (12" RCP)

1257.90' (12" RCP) | 1258.44' (12" RCP)

1259.46' (12" CMP) | 1260.30' (12" CMP)

1283.00' (12" RCP) | 1283.32' (12" RCP)

1281.40' (18" RCP) | 1282.78' (18" RCP)

1242.60' (18" RCP) | 1245.58' (18" RCP)

1289.48' (18" RCP) | 1291.26' (18" RCP)

1246.62' (12" RCP) | 1248.68' (12" RCP)

1241.92' (15" RCP) | 1243.32' (15" RCP)

1235.95' (24" CMP) | 1237.92' (24" CMP)

1233.94' (15" CMP) | 1235.31' (15" CMP)

1220.07' (36" RCP) | 1221.77' (36" RCP)

1241.40' (15" CMP) | 1243.22' (15" CMP)

1248.78' (12" CMP) | 1252.21' (12" CMP)

1236.38' (15" CMP) | 1236.96' (15" CMP)

1241.79' (15" CPP) 1243.17' (15" CPP)

1232.25' (15" RCP)

1221.33' (15" RCP)

unKnown

IADEE- I	TILOGOTIL AND MILTER	II L I OII OLI	WIOL
PRESSURE	AND METER TYPES FO	R WATER SE	RVICE
TAX MAP NUMBER	PROPERTY ADDRESS	APPROX. METER PRESSURE (psi)	METER TYPE
5480401	4210 Griffin Road, S.W.	112	2
5470201	4247 Griffin Road, S.W.	103	2
5470202	4237 Griffin Road, S.W.	86	2
5470203	4263 Griffin Road, S.W.	83	2
5470204	4305 Griffin Road, S.W.	78	2
5470205	4313 Griffin Road, S.W.	75	2
5470206	4323 Griffin Road, S.W.	73	<b>S</b> .
5470504	0 Griffin Road, S.W.	88	D
5470505	0 Griffin Road, S.W.	88	D
5470415	0 Griffin Road, S.W.	78	2
5470414	4320 Griffin Road, S.W.	68	2
5470413	0 Griffin Road, S.W.	66	2
5470412	4334 Griffin Road, S.W.	63	2
5470411	0 Griffin Road, S.W.	59	2
5470410	4350 Griffin Road, S.W.	52	D
5470409	0 Griffin Road, S.W.	52	D
5470408	4372 Griffin Road, S.W.	49	2
5470401	4323 Bristol Road, S.W.	63	2
5470402	4322 Bristol Road, S.W.	50	2
5470404	4351 Bristol Road, S.W.	34	2
5470405	4367 Bristol Road, S.W.	31	2
5470406	0 Bristol Road, S.W.	28	D
5470407	0 Bristol Road, S.W.	28	D
5470506	4318 Bristol Road, S.W.	74	2
5470526	0 Bristol Road, S.W.	60	S
5470525	4332 Bristol Road, S.W.	54	2
5470524	O Bristol Road, S.W.	41	D
5470523	O Bristol Road, S.W.	41	D
5470522	0 Bristol Road, S.W.	30	2
5470521	4364 Bristol Road, S.W.	28	D
5470520	4372 Bristol Road, S.W.	28	D
5470507	0 Joplin Road, S.W.	65	2
5470508	4233 Joplin Road, S.W.	65	2
5470509	4243 Joplin Road, S.W.	65	S
5470510	4251 Joplin Road, S.W.	66	2
5470511	4259 Joplin Road, S.W.	61	D
5470512	4267 Joplin Road, S.W.	61	D
5470513	4297 Joplin Road, S.W.	72	S
5470601	4228 Joplin Road, S.W.	68	S
5470602	4244 Joplin Road, S.W.	68	S
5470603	4252 Joplin Road, S.W.	65	S
5470604	4260 Joplin Road, S.W.	65	2
5470605	4268 Joplin Road, S.W.	70	2
5470712	4404 Van Winkle Road, S.W.	47	2
5470711	4384 Van Winkle Road, S.W.	41	2
5470710	4374 Van Winkle Road, S.W.	36	2
5470709	4366 Van Winkle Road, S.W.	36	2
5470708	4356 Van Winkle Road, S.W.	38	2
5470707	4350 Van Winkle Road, S.W.	40	2
5470705	4336 Van Winkle Road, S.W.	45	2
5470703	4306 Van Winkle Road, S.W.	69	2
5470702	0 Van Winkle Road, S.W.	76	2
5470701	0 Van Winkle Road, S.W.	81	2
5470519	0 Van Winkle Road, S.W.	37	D
5470518	0 Van Winkle Road, S.W.	37	D
5470517	0 Van Winkle Road, S.W.	41	2
5470516	4339 Van Winkle Road, S.W.	48	2
5470515	0 Van Winkle Road, S.W.	53	2
5470514	4305 Van Winkle Road, S.W.	71	2
5480340	4215 Roy Drive, S.W.	74	2
5480339	0 Roy Drive, S.W.	72	S
5480338	4233 Roy Drive, S.W.	65	2
5480337	0 Roy Drive, S.W.	62	2
5480121	0 Griffin Road, S.W.	72	2
5480122	4220 Roy Drive, S.W.	70	2
5480107	0 Roy Drive, S.W.	60	2
5480106	4236 Roy Drive, S.W.	55	2
	1 4236 Roy Drive, S.W. BOVE PRESSURES ARE STATIC BASED ON H		7

CURRENT ZONING: ALL LOTS ARE R-7 EXCEPT FOR TAX MAP #5480401.

#5480401 IS RA(c): RESIDENTIAL-AGRICULTURAL ORD. #30467 PROPOSED USE: SAME RESIDENTIAL USE WITH WATERLINE BETTERMENT. SITE ACREAGE: LOT SIZE VARIES. PROPOSED NUMBER OF LOTS: NO CHANGE IN NUMBER OF LOTS.

### **GENERAL NOTES**

- 1. THE PROPERTIES SHOWN ON THESE PLANS ARE LOCATED AT ROANOKE CITY TAX ASSESSMENT MAP NUMBERS AS LISTED IN CHART AT LEFT.
- OWNER/DEVELOPER: WESTERN VIRGINIA WATER AUTHORITY

(ATTN: WILL BULLOSS, P.E.) 601 SOUTH JEFFERSON STREET, SUITE 300

OF THE FLOOD INSURANCE RATE MAP #51161C0252G, DATED SEPTEMBER 28, 2007.

- ROANOKE, VA 24011 (540) 283-2939 NO PORTION OF THIS PROJECT IS LOCATED WITHIN THE LIMITS OF A 100 YEAR FLOOD BOUNDARY AS DESIGNATED BY FEMA. THIS OPINION IS BASED ON AN INSPECTION
- 4. THE PROPERTY LINES AND RIGHT OF WAY SHOWN ARE THE RESULT OF REPRODUCING RECORDED SUBDIVISION PLATS FOR THE LOTS INVOLVED AND JUSTIFYING THESE WITH PROPERTY CORNERS AS LOCATED BY FIELD SURVEY PERFORMED BY LUMSDEN ASSOCIATES, P.C. IN 2019.
- TOPOGRAPHIC DATA IS BASED ON A FIELD SURVEY PERFORMED BY LUMSDEN ASSOCIATES, P.C. IN 2019 AND SUPPLEMENTED BY ROANOKE CITY GIS MAPPING. THE LOCATION OF THE NEAR SIDE CURB, OR EDGE OF PAVEMENT, AND PROFILE
- ELEVATIONS ARE TAKEN DIRECTLY FROM THE FIELD SURVEY. A TITLE REPORT WAS NOT FURNISHED FOR THESE PROPERTIES. THE PROPERTIES SHOWN ON THESE PLANS ARE CURRENTLY SERVED BY WESTERN
- VIRGINIA WATER AUTHORITY FOR WATER SUPPLY. THE PROPERTIES SHOWN ON THESE PLANS ARE ACCESSED BY PUBLIC ROADS.
- AN APPROVED SET OF PLANS SHALL BE KEPT ON SITE AT ALL TIMES.

SITE	AND	ZONING	TABUL	ATIONS
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ssociates, en Lumsde

0

WINKLE

GRIFFIN ATERLINE

December 18, 2019

OMMISSION NO 19-034

SHEET 2 OF 12