

AVOIDANCE MANEUVER IS FOR A SPEED, PATH, AND/OR DIRECTION CHANGE PRIOR TO THE BEGINNING OF CHANNELIZING TAPERS. RECOMMENDED DISTANCES BETWEEN TWO SEPARATE LANE CLOSURES SHALL BE DOUBLE THE VALUES SHOWN ABOVE. RURAL AND URBAN ROAD DESIGNATIONS SHALL BE AS DEFINED IN THE NJDOT STATE HIGHWAY STRAIGHT LINE DIAGRAMS. DESIRABLE VALUES SHALL BE PROVIDED WHEREVER POSSIBLE. IF IT IS NOT FEASIBLE OR PRACTICAL TO PROVIDE DESIRABLE VALUES BECAUSE OF HORIZONTAL OR VERTICAL CURVATURE OR IF RELOCATION OF THE TAPER IS NOT POSSIBLE, THEN MINIMUM VALUES CAN BE APPLIED. WHEN MINIMUM VALUES ARE USED, SPECIAL ATTENTION SHOULD BE GIVEN TO THE USE OF SUITABLE TRAFFIC CONTROL DEVICES FOR PROVIDING ADVANCED WARNINGOF THE CONDITIONS THAT ARE LIKELY TO BE ENCOUNTERED. TAPERS SHALL BE LOCATED TO MAXIMIZE THE VISIBILITY OF THEIR TOTAL LENGTH.

RECOMMENDED TAPER LENGTH AND SPACING FOR CHANNELIZING TAPERS						RECOMMENDED SPACING ALONG TANGENTS
REGULATORY APPROACH SPEED OF TRAFFIC MILES/HOUR	MINIMUM TAPER RATIO IN LENGTH PER FOOT OF WIDTH	MINIMUM TAPER LENGTH L — FOR LANE WIDTHS 10' 11' 12'			MAXIMUM DEVICE (B) SPACING ALONG TAPERS IN FEET	MAXIMUM DEVICE (D) SPACING ALONG TANGENTS IN FEET
25	10.5:1	105	115	125	25	50
30	15:1	150	165	180	30	60
35	20.5:1	205	225	245	35	70
40	27:1	270	300	325	40	80
45	45:1	450	495	540	45	90
50	50:1	500	550	600	50	100
55	55:1	550	605	660	55	110
60	60:1	600	660	720	60	120

THE MAXIMUM DEVICE SPACING ALONG CURVES SHALL BE AS DEFINED FOR TAPERS (B) IN THE ABOVE TABLE.

65:1 650 715 780

TYPE III BARRICADE - FRONT VIEW BREAKAWAY BARRICADES

N.T.S.

- 1. THE 9" MIN. x 48", OR 12" MAX. x 48" BARRICADE RAILS SHALL BE FABRICATED FROM 0.125" MAX. PLASTIC SHEETING AND SHALL BE ATTACHED, 4 PER RAIL, WITH 1 INCH NO. 14 PAN HEAD METAL SCREWS OR PLASTIC RIVETS. ALL CORNERS SHALL BE ROUNDED.
- 2. ORANGE AND SILVER (WHITE) STRIPES SHALL BE RETROREFLECTIVE SHEETING, ASTM D 4956 TYPE III, AS SHOWN FOR CONSTRUCTION SIGNS. ALTERNATE ORANGE AND SILVER (WHITE) STRIPES 6" WIDE SLOPING DOWNWARD AT AN ANGLE OF 45 DEGREES IN THE DIRECTION TRAFFIC IS TO PASS.
- 3. IF NECESSARY, THE SANDBAGS SHALL BE FABRICATED AND PLACED ACCORDING TO THE MANUFACTURER'S RECOMMENDATION.
- 4. THE FRAMING FOR BARRICADE PANELS SHALL BE MASH CRASHED TESTED AND FHWA APPROVED.

(ORANGE) (TYP.) NON-REFLECTORIZED SPACE (ORANGE) BASE DIA. MAY BE LARGER THAN TOP DIA.

DRUM DETAIL

- 1. WHEN BALLAST IS REQUIRED BY THE R.E., SAND SHALL BE USED. THE MAXIMUM WEIGHT OF THE BALLAST SHALL BE 50 LBS. AND BE LOCATED APPROXIMATELY AT GROUND LEVEL. ALTERNATE TYPES OF BALLAST SHALL BE APPROVED BY
- 2. DRUMS SHALL BE MADE OF ORANGE PLASTIC WITH A MINIMUM OF FOUR ALTERNATE FLUORESCENT ORANGE AND WHITE RETROREFLECTIVE STRIPES. IF THERE ARE NON-REFLECTORIZED SPACES BETWEEN THE STRIPES, THEY SHALL BE NO MORE THAN 2" WIDE. RETROREFLECTIVE SHEETING FOR STRIPES SHALL CONFORM WITH ASTM D 4956 TYPE VII OR VIII WITH S2 REQUIREMENTS.
- 3. THE TOP OF THE DRUM SHALL NOT BE OPEN. DRUMS SHALL BE CONSTRUCTED TO INHIBIT ROLLING IF KNOCKED OVER.
- 4. THE REFLECTORIZED AREA OF DRUMS SHALL BE ROUND EXCEPT THAT OTHER SHAPES, WHICH PROVIDE THE SAME VISIBILITY AS AN 18 INCH DIAMETER ROUND DRUM REGARDLESS OF ORIENTATION, MAY BE USED.

GENERAL NOTES:

- 1. ALL SIGNS TO BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE M.U.T.C.D..
- 2. INSTALLATION, DIMENSIONS, COLORS AND DETAILS OF VARIOUS SIZE SIGNS, AND ACCESSORY PANELS TO FOLLOWS "STANDARD HIGHWAY SIGN PUBLICATION" STREETS AND HIGHWAYS".
- 3. (S) REPRESENTS A SPECIAL SIZE SIGN.
- 4. LETTERS AND NUMERALS SHALL CONFORM TO THE CURRENT MANUAL, "STANDARD ALPHABETS FOR HIGHWAY SIGNS" U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.
- 5. ADVANCE WARNING SIGNS, DISTANCES, AND TAPER LENGTHS MAY BE EXTENDED, AT DIRECTION OF THE ENGINEER, TO ADJUST FOR REDUCED VISIBILITY DUE TO HORIZONTAL AND VERTICAL CURVATURE OF THE ROADWAY.
- 6. RAMPS AND/OR SIDE STREETS ENTERING THE ROADWAY AFTER THE FIRST ADVANCE WARNING SIGN SHALL BE PROVIDED WITH AT LEAST ONE W20-IF SIGN (ROAD WORK AHEAD) AS A MINIMUM.
- 7. CONSTRUCTION SIGN W99-2 (GIVE US A BRAKE) SHALL BE LOCATED 200 FEET IN ADVANCE OF PROJECT LIMITS.

BACKING MATERIAL

- 1. ALUMINUM SHALL BE FLAT SHEET OF ALLOY AND TEMPER 5052-H38 OR 6061-T6:
- A. 0.10" THICK FOR ALL CONSTRUCTION SIGNS EXCEPT SIGNS SHOWN MOUNTED ON BREAKAWAY BARRICADES.
- B. 0.024" THICK FOR ALL CONSTRUCTION SIGNS SHOWN MOUNTED ON BREAKAWAY BARRICADES.

TEMPORARY SIGN SUPPORTS

- 1. SIGN SUPPORTS SHALL BE OF WELL SEASONED LUMBER, S4S, FREE OF SPLITS, KNOTS AND WARPS, OR OF STEEL COMPONENTS.
- WOOD POSTS SHALL HAVE A UNIFORM CROSS-SECTION AND SHALL NOT EXCEED THE FOLLOWING DIMENSIONS FOR: SINGLE POST = $4'' \times 6''$

TWO POSTS = 3" x 6" OR 4" x 5" THREE POSTS = 3" x 5" OR 4" x 4"

- 4" X 6" WOOD POSTS SHALL BE MODIFIED BY DRILLING 11/2 INCH DIAMETER HOLES 4 INCHES AND 18 INCHES ABOVE THE GROUND LINE AND PERPENDICULAR TO THE ROADWAY CENTERLINE.
- MOUNTED ON WOOD SUPPORTS SHALL BE 7 FOOT MINIMUM. EMBEDMENT DEPTH FOR THE WOOD POST SHALL NOT EXCEED 3.5 FEET. 4. STEEL POSTS SHALL BE IN ACCORDANCE WITH THE NJDOT

NO BRACING IS PERMITTED. VERTICAL CLEARANCES FOR SIGNS

STANDARD DETAIL FOR U-POST SIGN SUPPORT. TEMPORARY SIGN SUPPORTS NOT MEETING THIS CRITERIA SHALL

SIGN FACES

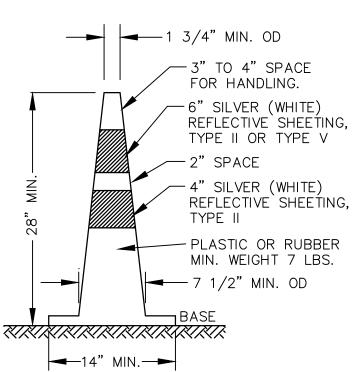
1. SIGN FACES SHALL BE ASTM D 4956 TYPE VII OR VIII FLUORESCENT ORANGE SHEETING.

BE SHIELDED BY A LONGITUDINAL BARRIER OR CRASH CUSHIONS.

FASTENING

- 1. ALL SIGNS SHALL BE SECURELY FASTENED TO THEIR SUPPORTS WITH BOLTS, NUTS AND WASHERS IN ACCORDANCE WITH THE SPECIFICATIONS.
 - THIS SIGN SHALL BE INSTALLED FOR ROADS WITH A SPEED LIMIT OF \bigstar 45 M.P.H. OR GREATER UNLESS OTHERWISE DIRECTED BY THE RE. FOR ROADS WITH A SPEED LIMIT GREATER THAN 55 M.P.H., A "ROAD WORK 2 MILES" SIGN SHALL ALSO BE INSTALLED 2 MILES IN ADVANCE OF LANE CLOSING UNLESS OTHERWISE DIRECTED BY THE
 - 1. SEE RECOMMENDED TAPER LENGTH AND SPACING TABLE FOR VALUES OF L, B AND D.

TRAFFIC CONES SHALL BE PREDOMINATELY ORANGE IN COLOR.



BASES MAY BE OF BREAKAWAY BALLASTED TYPE.

MINOR MANUFACTURER'S VARIATIONS MAY BE ACCEPTABLE UPON APPROVAL OF THE ENGINEER.

TRAFFIC CONE DETAIL

REMINGTON & VERNICK **ENGINEERS**

845 NORTH MAIN STREET PLEASANTVILLE, NJ 08232 (609) 645-7110, FAX (609) 645-7076 WEB SITE ADDRESS: WWW.RVE.COM Certification of Authorization: 24 GA 28003300

~ENGINEERING EXCELLENCE~

NJ PROFESSIONAL ENGINEER LIC. No. 3532

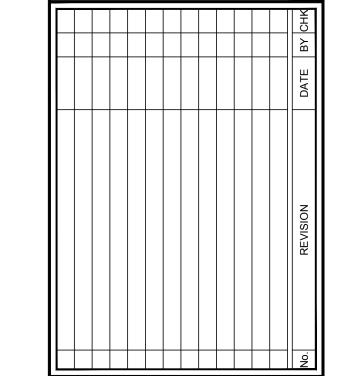
Xum

5/20/2024 FRANK J. SENEY JR

PRELIMINARY

PLANS WHICH DO NOT BEAR AN EMBOSSED SEAL ARE NOT VALID

ALL DOCUMENTS PREPARED BY REMINGTON & VERNIC ENGINEERS AND AFFILIATES ARE INSTRUMENT OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NO NTENDED OR REPRESENTED TO BE SUITABLE FO REUSE BY OWNER OR OTHERS ON EXTENSIONS OF TH ROJECT OR ON ANY OTHER PROJECT. ANY REUS WITHOUT WRITTEN VERIFICATION OR ADAPTATIO Y REMINGTON & VERNICK ENGINEERS AND AFFILIATE OR THE SPECIFIC PURPOSE INTENDED WILL T OWNERS SOLE RISK AND WITHOUT LIABILITY O EGAL EXPOSURE TO REMINGTON & VERNICK ENGINEER AND AFFILIATES: AND OWNER SHALL INDEMNIFY AND HO IARMLESS REMINGTON & VERNICK ENGINEERS AN AFFILIATES FROM ALL CLAIMS, DAMAGES, LOSSES AN XPENSES ARISING OUT OF OR RESULTING THEREFRO



ET ST ROAD DII AVENUE CITY OF A

DRAWN BY: DESIGN BY: CHECKED BY: SCALE C.F.C. T.J.M. D.K. AS NOTED SHEET No.: 8-3-2023 46 of 46 JOB No.: 01-02-U-016