CONTINUOUS LINES

EDGE LINE
YELLOW OR WHITE

LANE LINE
WHITE

CENTER LINE
YELLOW OR WHITE

GORE LINE
WHITE

DIAGONAL LINE
YELLOW OR WHITE

CROSSWALK LINE
WHITE

RxR LINE
WHITE

STOP OR TRANSVERSE BAR
WHITE

10'-30'/SP SKIP LINE
YELLOW OR WHITE

2'-6'/SP MINI-SKIP LINE
YELLOW OR WHITE

3'-3'/SP MINI-SKIP LINE
WHITE

3'-9'/SP MINI-SKIP LINE
WHITE

GENERAL NOTES:
1. USE 6" LANE, EDGE, AND CENTER LINES ON ALL FULL CONTROL OF ACCESS FACILITIES AND OTHER ROUTES AS DIRECTED BY THE ENGINEER.
2. LANE LINES INDICATED AS "WIDE" ON THE ROADWAY STANDARD DRAWINGS SHALL BE AT LEAST TWICE THE WIDTH OF THE NORMAL LINE.
3. GORE LINES SHALL BE TWICE THE WIDTH OF THE NORMAL LINE.
GENERAL NOTES:
1. EDGE LINES ARE NOT REQUIRED ALONG CURB AND GUTTER LOCATIONS.
2. CONTINUE EDGE LINES THROUGH MINOR DRIVEWAYS, DO NOT CONTINUE EDGE LINES AT INTERSECTIONS AND MAJOR DRIVEWAYS, SEE ROADWAY STANDARD DRAWING 1205.05 FOR ADDITIONAL GUIDANCE.
3. REFER TO ROADWAY STANDARD DRAWINGS 1205.01 AND 1205.08 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.

LEGEND
- W = WIDTH OF TRAVEL LANE
- E.O.T. = EDGE OF TRAVEL
- ★ = DIRECTION OF TRAFFIC FLOW
- ≡ = PAVEMENT MARKING SYMBOLS
UNDIVIDED MULTI-LANE ROADWAY
WITH TWO-WAY LEFT TURN LANE

DIVIDED FOUR-LANE ROADWAY

GENERAL NOTES:
1- EDGE LINES ARE NOT REQUIRED ALONG CURB AND GUTTER LOCATIONS.
2- CONTINUE EDGE LINES THROUGH MINOR DRIVEWAYS. DO NOT CONTINUE EDGE LINES AT INTERSECTIONS AND MAJOR DRIVEWAYS, SEE ROADWAY STANDARD DRAWING 1205.05 FOR ADDITIONAL GUIDANCE.
3- REFER TO ROADWAY STANDARD DRAWINGS 1205.01 AND 1205.08 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.

LEGEND

- WIDTH OF TRAVEL LANE

- EDGE OF TRAVEL

- DIRECTION OF TRAFFIC FLOW

- PAVEMENT MARKING SYMBOLS

1 - 18
GENERAL NOTES:

1. LINE WIDTH ON ENTRANCE AND EXIT RAMPS SHALL MATCH THE LINE WIDTH ON THE MAINLINE.
2. GORE LINE MARKINGS TERMINATE AT THE PHYSICAL GORE.
3. GORE LINES SHALL BE TWICE THE WIDTH OF THE NORMAL LINE.
4. REFER TO ROADWAY STANDARD DRAWING 1205.01 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.

LEGEND

- W = WIDTH OF TRAVEL LANE
- E.O.T. = EDGE OF TRAVEL
- # = DIRECTION OF
- - = TRAFFIC FLOW
PARALLEL DECELERATION LANE

1- LINE WIDTH ON ENTRANCE AND EXIT RAMPS SHALL MATCH THE LINE WIDTH ON THE MAINLINE.
2- GORE LINE MARKINGS TERMINATE AT THE PHYSICAL GORE.
3- LANE LINES INDICATED AS "WIDE" SHALL BE AT LEAST TWICE THE WIDTH OF THE NORMAL LINE.
4- GORE LINES SHALL BE TWICE THE WIDTH OF THE NORMAL LINE.
5- REFER TO ROADWAY STANDARD DRAWING 1205.01 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.

WHITE EDGE LINE
YELLOW EDGE LINE
WHITE GORE LINES
THEORETICAL GORE
WHITE "WIDE" LANE LINE
WHITE 3'-9'/SP MINI-SKIP LINE
E.O.T.
SHOULDER

PARALLEL DECELERATION LANE AT A MULTI-LANE EXIT

WHITE EDGE LINE
YELLOW EDGE LINE
WHITE GORE LINES
THEORETICAL GORE
WHITE 3'-9'/SP MINI-SKIP LINE
E.O.T.
SHOULDER

GENERAL NOTES:

LEGEND

W = WIDTH OF TRAVEL LANE
E.O.T. = EDGE OF TRAVEL
• DIRECTION OF TRAFFIC FLOW
TAPERED ACCELERATION LANE

PARALLEL ACCELERATION LANE

GENERAL NOTES:

1. Line width on entrance and exit ramps shall match the line width on the mainline.
2. Gore line markings terminate at the physical gore.
3. Lane lines indicated as "wide" shall be at least twice the width of the normal line.
4. Gore lines shall be twice the width of the normal line.
5. Refer to roadway standard drawings 1205.01 and 1205.08 for additional pavement marking guidance.

LEGEND

- W = width of travel lane
- E.O.T. = edge of travel
- □ = direction of traffic flow
- ▲ = pavement marking symbols
GENERAL NOTES:

1. REFER TO THE PAVEMENT MARKING PLAN FOR STOP BAR LOCATIONS FOR SIGNALIZED INTERSECTIONS. IF A PAVEMENT MARKING PLAN IS NOT PROVIDED, CONTACT THE SIGNAL DESIGN SECTION FOR THE STOP BAR LOCATIONS OR AS DIRECTED BY THE ENGINEER.

2. MINI-SKIP LANE LINE EXTENSIONS SHOULD BE USED AT INTERSECTIONS THAT HAVE REDUCED VISIBILITY CONDITIONS SUCH AS OFFSET, SKEWED, OR CURVED ROADWAYS.

3. MINI-SKIP LANE LINE EXTENSIONS SHALL BE USED WHERE MULTIPLE TURN LANES ARE USED.

4. REFER TO ROADWAY STANDARD DRAWINGS 1205.01, 1205.02, 1205.05, 1205.08 AND 1205.09 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.

LEGEND

- DIRECTION OF
- TRAFFIC FLOW
- PAVEMENT MARKING SYMBOLS
- OPTIONAL
**General Notes:**

1. Placement of stop bars at non-signalized intersections is optional and used where it is important to indicate the point which vehicles are required to stop. Place stop bars no less than 4 feet and no more than 30 feet from the nearest edge of the intersecting roadway. Use 10 feet as the typical setback distance or as directed by the engineer.

2. Mini-skip lane line extensions should be used at intersections that have reduced visibility conditions such as offset, skewed, or curved roadways.

3. Mini-skip edge line extensions may be placed through intersections and major driveways.

4. Refer to roadway standard drawings 1205.01, 1205.02, 1205.05, 1205.08 and 1205.09 for additional pavement marking guidance.

**Legend:**

- STOP SIGN
- STATIONARY SIGN
- DIRECTION OF
- TRAFFIC FLOW
- PAVEMENT MARKING SYMBOLS
- OPTIONAL

---

**Roadway Standard Drawings for Pavement Markings**

- **Two-Lane, Two-Way Roadway**
  - STOP BAR, SEE NOTE 1
  - WHITE 2'-6'/SP MINI-SKIP LINE, SEE NOTE 3
  - WHITE 2'-6'/SP MINI-SKIP LINES, SEE NOTE 2

- **Undivided Multi-Lane Roadway**
  - STOP BAR, SEE NOTE 1
  - WHITE 2'-6'/SP MINI-SKIP LINE, SEE NOTE 3
  - WHITE 2'-6'/SP MINI-SKIP LINES, SEE NOTE 2

- **Divided Multi-Lane Roadway with Turn Bay**
  - STOP BAR, SEE NOTE 1
  - WHITE 2'-6'/SP MINI-SKIP LINE, SEE NOTE 3
  - YELLOW 2'-6'/SP MINI-SKIP LINE
  - MONOLITHIC ISLANDS MAY BE OUTLINED WITH EDGE LINES

- **Divided Multi-Lane Roadway with Wide Median Crossover**
  - STOP BAR, SEE NOTE 1
  - YELLOW 2'-6'/SP MINI-SKIP LINES
  - CONTINUE EDGE LINE AROUND MEDIAN

Use double yellow center line and arrow symbols in median crossover when width of median exceeds 30 ft, otherwise they are not required.
GENERAL NOTES:
1- USE THE GUIDANCE SHOWN ABOVE IN CONJUNCTION WITH THE INTERSECTION GUIDANCE SHOWN ON ROADWAY STANDARD DRAWING 1205.04.
2- THE NUMBER OF ARROWS SHOWN IS THE MINIMUM REQUIRED. USE ADDITIONAL ARROWS AS DIRECTED BY THE ENGINEER.
LANE DROP AT AN INTERSECTION

- White skip lane line
- White "Wide" 3'-9'/SP mini-skip line

THE LANE DROP MARKINGS SHOULD BEGIN NO CLOSER TO THE INTERSECTION THAN THE MOST UPSTREAM REGULATORY SIGN, R3-7R OR R3-7L, ASSOCIATED WITH THE LANE DROP.

LANE DROP AT AN INTERSECTION WITH AN AUXILIARY LANE

- White skip lane line
- White "Wide" lane line

THE LANE DROP MARKINGS SHOULD BEGIN NO CLOSER TO THE INTERSECTION THAN THE MOST UPSTREAM REGULATORY SIGN, R3-7R OR R3-7L, ASSOCIATED WITH THE LANE DROP.

GENERAL NOTES:
1. USE THE GUIDANCE SHOWN ON THE ABOVE DETAILS IN CONJUNCTION WITH INTERSECTION GUIDANCE SHOWN ON ROADWAY STANDARD DRAWING 1205.04.
2. LANE LINES INDICATED AS "Wide" SHALL BE AT LEAST TWICE THE WIDTH OF THE NORMAL LINE.
GENERAL NOTES:

1. USE THE GUIDANCE SHOWN ON THE FOLLOWING DETAILS IN CONJUNCTION WITH THE RAMP GUIDANCE SHOWN ON ROADWAY STANDARD DRAWING 1205.03.

2. LANE LINES INDICATED AS "WIDE" SHALL BE AT LEAST TWICE THE WIDTH OF THE NORMAL LINE.

3. GORE LINES SHALL BE TWICE THE WIDTH OF THE NORMAL LINE.

4. MINI-SKIPS MAY BE EXTENDED TO COINCIDE WITH THE LANE DROP ADVANCE ONE MILE GUIDE SIGN AS DIRECTED BY THE ENGINEER. IF MARKINGS ARE EXTENDED, ADDITIONAL LANE DROP MARKINGS MAY BE INSTALLED.

**LEGEND**

- **W** = WIDTH OF TRAVEL LANE
- **DIRECTION OF TRAFFIC FLOW**
- **ONLY** PAVEMENT MARKING SYMBOLS & CHARACTERS

**LANE DROP AT A SINGLE LANE EXIT RAMP**

**LANE DROP AT A MULTI-LANE EXIT RAMP**
GENERAL NOTES:
1. USE THE GUIDANCE SHOWN ON THE FOLLOWING DETAILS IN CONJUNCTION WITH THE RAMP GUIDANCE SHOWN ON ROADWAY STANDARD DRAWING 1205.03.
2. LANE LINES INDICATED AS "WIDE" SHALL BE AT LEAST TWICE THE WIDTH OF THE NORMAL LINE.
3. GORE LINES SHALL BE TWICE THE WIDTH OF THE NORMAL LINE.
4. MINI-SKIPS MAY BE EXTENDED TO COINCIDE WITH THE ROUTE SPLIT ADVANCE ONE MILE GUIDE SIGN AS DIRECTED BY THE ENGINEER.
5. LANE LENGTH AND LANE DROP MARKINGS PLACEMENT MAY BE ADJUSTED DEPENDING ON AUXILIARY LANE LENGTH.

LEGEND

* OPTIONAL
W = WIDTH OF TRAVEL LANE
D DIRECTION OF TRAFFIC FLOW
P AVEMENT MARKING SYMBOLS & CHARACTERS

ROADWAY STANDARD DRAWING FOR
LANE DROPS

AUXILIARY LANE 2 MILES OR LESS IN LENGTH BETWEEN RAMPS
AUXILIARY LANE WITH MULTI-LANE EXIT RAMP, 2 MILES OR LESS BETWEEN RAMPS

AUXILIARY LANE WITH MULTI-LANE ENTRANCE RAMP AND EXIT RAMP, 2 MILES OR LESS BETWEEN RAMPS

GENERAL NOTES:
1. USE THE GUIDANCE SHOWN ON THE FOLLOWING DETAILS IN CONJUNCTION WITH THE RAMP GUIDANCE SHOWN ON ROADWAY STANDARD DRAWING 1205.03.
2. LANE LINES INDICATED AS "WIDE" SHALL BE AT LEAST TWICE THE WIDTH OF THE NORMAL LINE.
3. GORE LINES SHALL BE TWICE THE WIDTH OF THE NORMAL LINE.
4. LANE LENGTH AND LANE DROP MARKINGS PLACEMENT MAY BE ADJUSTED DEPENDING ON AUXILIARY LANE LENGTH.

LEGEND
- OPTIONAL
W = WIDTH OF TRAVEL LANE
DIRECTION OF TRAFFIC FLOW
- PAVEMENT MARKING SYMBOLS & CHARACTERS

SHEET 4 OF 5
1205.06
GENERAL NOTES:

1. USE THE GUIDANCE SHOWN ON THE FOLLOWING DETAILS IN CONJUNCTION WITH THE RAMP GUIDANCE SHOWN ON ROADWAY STANDARD DRAWING 1205.03.

2. LANE LINES INDICATED AS "WIDE" SHALL BE AT LEAST TWICE THE WIDTH OF THE NORMAL LINE.

3. GORE LINES SHALL BE TWICE THE WIDTH OF THE NORMAL LINE.

4. MINI-SKIPS MAY BE EXTENDED TO COINCIDE WITH THE LANE DROP ADVANCE ONE MILE GUIDE SIGN AS DIRECTED BY THE ENGINEER.

5. LANE LENGTH AND LANE DROP MARKINGS PLACEMENT MAY BE ADJUSTED DEPENDING ON AUXILIARY LANE LENGTH.

LEGEND

- OPTIONAL
- W = WIDTH OF TRAVEL LANE
- DIRECTION OF TRAFFIC FLOW
- PAVEMENT MARKING SYMBOLS & CHARACTERS

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
RALEIGH, N.C.

DIVISION OF HIGHWAYS
DEPT. OF TRANSPORTATION
NORTH CAROLINA
STATE OF
RALEIGH,
N.C.
1. Use the details above and the following notes for guidance in placing crosswalk markings. Refer to NCDOT Roadway Standard Drawings, MUTCD and ADA Standards for additional guidance.

2. The location and type of crosswalk markings shown on the above details are for reference only. Locate crosswalk markings as shown on the project detail sheets or as directed by the Engineer. The crosswalk marking type, standard or hi-visibility, shall be installed as specified on the project detail sheets or as directed by the Engineer.

3. The standard crosswalk is two white 8” min. transverse lines with a 6’ min. gap between the lines. The hi-visibility crosswalk is white 24” max. wide longitudinal lines with 24” min. gaps between lines, see detail ‘C’. Hi-visibility crosswalks should be a minimum of 6’ wide. Curb ramps shall be wholly contained within the markings, excluding any flares.

4. Stop bars should be placed a 4’ min. in advance of nearest crosswalk line.

5. Set back distance from inside crosswalk marking to nearest edge of travel is 4’ min.

6. Beyond the bottom grade break, a clear space of 4’ x 4’ min. shall be provided within the markings.

7. Single diagonal curb ramps with flared sides shall have a segment of curb 2’ min. long located on each side of the curb ramp and within the marked crossing, see detail ‘B’.

8. Curb ramps shall be constructed in accordance to the latest NCDOT roadway standard drawings. Curb ramps through median islands, single ramps at dual crosswalks or limited r/w situations, will be handled by special details. Contact the contract standards and development unit for details or a special design.

General Notes:
GENERAL NOTES:

1. USE THE COLOR WHITE FOR ALL PAVEMENT MARKING SYMBOLS.
2. DO NOT LOCATE PAVEMENT MARKING SYMBOLS AS TO ENCROACH INTO INTERSECTION AREAS.
3. DO NOT PLACE SYMBOLS ACROSS TRANSVERSE EXPANSION JOINTS ON PORTLAND CEMENT CONCRETE PAVEMENTS, UNLESS APPROVED BY THE ENGINEER.
4. CONFIRM ALL SYMBOLS TO THE FHWA "STANDARD HIGHWAY SIGNS" MANUAL WHICH INCLUDES PAVEMENT MARKINGS AND STANDARD ALPHABETS (REFER TO SHEETS 6 THRU 9). DIMENSIONS CAN VARY AMONG MANUFACTURERS, THEREFORE SLIGHT VARIANCES ARE ACCEPTABLE. HOWEVER, ALL SYMBOLS ARE REQUIRED TO BE APPROVED BY THE DEPARTMENT.

NOTE:

1. WHEN INSTALLING COLD-APPLIED PLASTIC ON CONCRETE, IT IS RECOMMENDED TO USE COLD APPLIED PLASTIC WITH A BLACK CONTRASTING BOLDER.
GENERAL NOTES:

1. USE THE COLOR WHITE FOR ALL PAVEMENT MARKING SYMBOLS.

2. DO NOT LOCATE PAVEMENT MARKING SYMBOLS AS TO ENCROACH INTO INTERSECTION AREAS.

3. DO NOT PLACE SYMBOLS ACROSS TRANSVERSE EXPANSION JOINTS ON PORTLAND CEMENT CONCRETE PAVEMENTS, UNLESS APPROVED BY THE ENGINEER.

4. CONFORM ALL SYMBOLS TO THE FHWA "STANDARD HIGHWAY SIGNS" MANUAL WHICH INCLUDES PAVEMENT MARKINGS AND STANDARD ALPHABETS (REFER TO SHEETS 6 THRU 9). DIMENSIONS CAN VARY AMONG MANUFACTURERS, THEREFORE SLIGHT VARIANCES ARE ACCEPTABLE. HOWEVER, ALL SYMBOLS ARE REQUIRED TO BE APPROVED BY THE DEPARTMENT.
BICYCLE LANE SYMBOLS

BICYCLE DETECTOR SYMBOL

ROUTE SHIELDS

**GENERAL NOTES:**

1. USE THE COLOR WHITE FOR ALL PAVEMENT MARKING SYMBOLS.
2. DO NOT LOCATE PAVEMENT MARKING SYMBOLS AS TO ENCROACH INTO INTERSECTION AREAS.
3. DO NOT PLACE SYMBOLS ACROSS TRANSVERSE EXPANSION JOINTS ON PORTLAND CEMENT CONCRETE PAVEMENTS, UNLESS APPROVED BY THE ENGINEER.
4. CONFORM ALL SYMBOLS TO THE FHWA "STANDARD HIGHWAY SIGNS" MANUAL WHICH INCLUDES PAVEMENT MARKINGS AND STANDARD ALPHABETS (REFER TO SHEETS 6 THRU 9). DIMENSIONS CAN VARY AMONG MANUFACTURERS, THEREFORE SLIGHT VARIANCES ARE ACCEPTABLE. HOWEVER, ALL SYMBOLS ARE REQUIRED TO BE APPROVED BY THE DEPARTMENT.

**NOTES:**

1. INTERSTATE SHIELD HAS A COLOR BACKGROUND AS INDICATED.
2. BLACK CONTRASTING BACKGROUND OPTIONAL. SHIELD WITHOUT BACKGROUND SHALL MAINTAIN DIMENSIONS SHOWN.
MULTI-LANE WIDTH "SCHOOL"

SINGLE LANE WIDTH "SCHOOL"

RAILROAD RXR SYMBOL

GENERAL NOTES:

1. THE SCHOOL PAVEMENT MARKING CONSISTS OF SIX (6) CHARACTERS. THE TWO (2) 24" TRANSVERSE BANDS WILL BE PAID PER LINEAR FOOT AS A 24" PAVEMENT MARKING LINE. REFER TO ROADWAY STANDARD DRAWING 1205.10 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.

2. PAVEMENT MARKING IN ADVANCE OF A HIGHWAY-RAIL CROSSING SHALL CONSIST OF TWO (2) CHARACTERS AND TWO (2) 16" LINES (FORMING AN X) WHICH ARE PAID PER LINEAR FOOT AS A 16" PAVEMENT MARKING LINE. THE TWO (2) 24" TRANSVERSE BANDS WILL BE PAID PER LINEAR FOOT AS A 24" PAVEMENT MARKING LINE. REFER TO ROADWAY STANDARD DRAWING 1205.11 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.
GENERAL NOTES:

1. STANDARD CHARACTERS ARE 25 GRID UNITS HIGH AND 4 UNITS WIDE (EXCEPT LETTER "I" AND THE NUMBER "1" WHICH ARE 1 UNIT WIDE).

2. VERTICAL STROKES ARE 1 UNIT WIDE, HORIZONTAL STROKES ARE 4 UNITS HIGH.

3. SPACE 1 UNIT (MIN.) BETWEEN CHARACTERS OR AS OTHERWISE SHOWN (OPTICAL SPACING MAY BE USED).

4. STANDARD CHARACTER Heights ARE 8'-4". EXCEPT FOR THE 6' RAILROAD "R" SYMBOL AND THE TWO-LANE 10' SCHOOL SYMBOL.

5. FOR 8'-4" HIGH CHARACTERS, THE WIDTH IS 16" (USE 4" FOR EACH GRID SQUARE).

6. FOR 10' HIGH CHARACTERS, THE WIDTH IS 20" (USE 5" FOR EACH GRID SQUARE).

7. FOR 6' HIGH CHARACTERS, THE WIDTH IS 11½" (USE 2½" FOR EACH GRID SQUARE).
GENERAL NOTES:

1. STANDARD CHARACTERS ARE 25 GRID UNITS HIGH AND 4 UNITS WIDE (EXCEPT LETTER “I” AND THE NUMBER “1” WHICH ARE 1 UNIT WIDE).

2. VERTICAL STROKES ARE 1 UNIT WIDE, HORIZONTAL STROKES ARE 4 UNITS HIGH.

3. SPACE 1 UNIT (MIN.) BETWEEN CHARACTERS OR AS OTHERWISE SHOWN (OPTICAL SPACING MAY BE USED).

4. STANDARD CHARACTER HEIGHTS ARE 8'-4". EXCEPT FOR THE 6' RAILROAD "A" SYMBOL AND THE TWO-LANE 10' SCHOOL SYMBOL.

5. FOR 8'-4" HIGH CHARACTERS, THE WIDTH IS 16" (USE 4" FOR EACH GRID SQUARE).

6. FOR 10" HIGH CHARACTERS, THE WIDTH IS 20" (USE 5" FOR EACH GRID SQUARE).

7. FOR 6' HIGH CHARACTERS, THE WIDTH IS 11½" (USE 27½" FOR EACH GRID SQUARE).
GENERAL NOTES:

1. STANDARD CHARACTERS ARE 25 GRID UNITS HIGH AND 4 UNITS WIDE (EXCEPT LETTER ‘I’ AND THE NUMBER ‘1’ WHICH ARE 1 UNIT WIDE).

2. VERTICAL STROKES ARE 1 UNIT WIDE, HORIZONTAL STROKES ARE 4 UNITS HIGH.

3. SPACE 1 UNIT (MIN.) BETWEEN CHARACTERS OR AS OTHERWISE SHOWN (OPTICAL SPACING MAY BE USED).

4. STANDARD CHARACTER HEIGHTS ARE 8'-4". EXCEPT FOR THE 6' RAILROAD ‘R’ SYMBOL AND THE TWO-LANE 10' SCHOOL SYMBOL.

5. FOR 8'-4" HIGH CHARACTERS, THE WIDTH IS 16" (USE 4" FOR EACH GRID SQUARE).

6. FOR 10' HIGH CHARACTERS, THE WIDTH IS 20" (USE 5" FOR EACH GRID SQUARE).

7. FOR 6' HIGH CHARACTERS, THE WIDTH IS 111/2" (USE 23/8" FOR EACH GRID SQUARE).
GENERAL NOTES:
1. STANDARD CHARACTERS ARE 25 GRID UNITS HIGH AND 4 UNITS WIDE (EXCEPT LETTER "I" AND THE NUMBER "1", WHICH ARE 1 UNIT WIDE).
2. VERTICAL STROKES ARE 1 UNIT WIDE, HORIZONTAL STROKES ARE 4 UNITS WIDE.
3. SPACE 1 UNIT (MIN.) BETWEEN CHARACTERS OR AS OTHERWISE SHOWN.
4. STANDARD CHARACTERS MAY BE USED IN PLACE OF THE 
   R" SYMBOL AND THE TWO-LANE 10' SCHOOL SYMBOL.
5. FOR 8'-4" HIGH CHARACTERS, THE WIDTH IS 20" (USE 4" FOR EACH GRID SQUARE).
6. FOR 6' HIGH CHARACTERS, THE WIDTH IS 11½" (USE 2½" FOR EACH GRID SQUARE).
7. FOR 4' HIGH CHARACTERS, THE WIDTH IS 16" (USE 4" FOR EACH GRID SQUARE).
8. OPTICAL SPACING MAY BE USED.
9. FOR 6' HIGH CHARACTERS, THE WIDTH IS 20" (USE 4" FOR EACH GRID SQUARE).

SYMBOLS AND WORD MESSAGES

ROADWAY STANDARD DRAWING FOR
PAVEMENT MARKINGS
SYMBOLS AND WORD MESSAGES

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

1-18
**CHANNELIZING ISLAND SEPARATING TRAFFIC IN SAME DIRECTION**

**LEGEND**

- P A V E M E N T  M A R K I N G S
- P A I N T E D  I S L A N D S
- P A V E M E N T  M A R K I N G S
- N O R T H  C A R O L I N A
- D I V I S I O N  O F  H I G H W A Y S
- D E P T .  O F  T R A N S P O R T A T I O N
- S T A T E  O F  N C

---

**GENERAL NOTES:**

1. "D" = SPACING OF DIAGONAL LINES (TYPICALLY EQUAL IN FEET TO THE POSTED SPEED LIMIT).
2. INCREASE SPACING OF DIAGONALS TO 200' OR MORE ON INTERSTATE ROADWAYS.
3. ADJUST SPACING OF DIAGONALS DEPENDING ON THE LENGTH OF THE ISLAND. SPACING MAY BE ADJUSTED AS DETERMINED BY THE ENGINEER.
GENERAL NOTES:

1. SINGLE LANE WIDTH "SCHOOL" WORD MESSAGES CAN BE USED IN EACH APPROACH LANE.

2. EXTEND 24" WHITE TRANSVERSE LINES ACROSS ALL APPROACH LANES TO THE SCHOOL AREA. EXTEND 24" WHITE TRANSVERSE LINES ACROSS ENTIRE ROAD WHEN TWO-LANE WIDTH MESSAGES ARE USED ON TWO-LANE, TWO WAY ROADWAYS.

3. REFER TO ROADWAY STANDARD DRAWING 1205.08 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.
** ADVANCE PAVEMENT MARKINGS SHALL NOT BE REQUIRED WHEN THE POSTED OR STATUTORY HIGHWAY SPEED IS LESS THAN 40 MPH OR IN URBAN AREAS IF AN ENGINEERING STUDY INDICATES THAT OTHER INSTALLED DEVICES PROVIDE SUITABLE WARNING AND CONTROL. REFER TO PART 8 OF THE MUTCD FOR ADDITIONAL GUIDANCE.

** THE PLACEMENT LOCATION IS DEPENDENT ON SITE CONDITIONS TO PROVIDE AN ADEQUATE ADVANCE WARNING FOR THE DRIVER. PLACEMENT MAY NEED TO BE ADJUSTED FOR A SIGN LEGIBILITY DISTANCE OF 250 FT.

A PORTION OF THE "X" SYMBOL SHOULD BE DIRECTLY OPPOSITE THE ADVANCE RAILROAD WARNING SIGN (W10-1).

Extend yellow center line at least 10 ft. past the railroad symbol (or longer as required to meet sight distance requirements).

The placement location is dependent on site conditions to provide an adequate advance warning for the driver. Placement may need to be adjusted for a sign legibility distance of 250 ft.

The MUTCD for additional guidance.

Refer to "Manual on Uniform Traffic Control Devices" or signing plans for additional warning signs.
RAILROAD LESS THAN 40 FT. FROM INTERSECTION

RAILROAD LESS THAN 40 FT. FROM INTERSECTION

RAILROAD MORE THAN 75 FT. FROM INTERSECTION

RAILROAD MORE THAN 75 FT. FROM INTERSECTION

THIS ADDITIONAL SYMBOL SET MAY BE REQUIRED DEPENDING ON SPEED LIMIT OF APPROACH. SYMBOL IS NOT REQUIRED IF THIS APPROACH IS STOP SIGN CONTROLLED.

CONTINUE MARKINGS THROUGH 'RXR' TRACKS (SEE NOTE 5, SHEET 1)

CONTINUE MARKINGS THROUGH 'RXR' TRACKS (SEE NOTE 5, SHEET 1)

CONTINUE MARKINGS THROUGH 'RXR' TRACKS (SEE NOTE 5, SHEET 1)

CONTINUE MARKINGS THROUGH 'RXR' TRACKS (SEE NOTE 5, SHEET 1)
3-LANE, 2-WAY SECTION
(NO CENTER TURN-LANE)

CONTINUE MARKINGS THROUGH 'RXR' TRACKS
(SEE NOTE 5, SHEET 1)

5-LANE SECTION
CENTER TURN-LANE DISCONTINUED ACROSS TRACKS

TURN LANE TAPER.

*OMIT THE SYMBOL SET IN THE TURN LANE IF "R X R" SYMBOL FALLS WITHIN A
TURN LANE TAPER.

REFERENCE MARKINGS THROUGH 'RXR' TRACKS
(SEE NOTE 5, SHEET 1)

75' TYP.
(BOOTH SIDES)
GENERAL NOTES:
1. NO PASSING ZONES SHOWN ARE MINIMUMS. APPLY MINIMUM PASSING AND STOPPING SIGHT DISTANCES AS DETERMINED BY THE ENGINEER.
2. FOR BRIDGES 18 TO 25 FEET WIDE, SIGNS MUST BE USED WHEN THE CLEAR ROADWAY WIDTH IS LESS THAN THE WIDTH OF THE APPROACH PAVEMENT PLUS 2 FEET.

LEGEND
• DIRECTION OF TRAFFIC FLOW
○ PAVEMENT MARKER
△ STATIONARY SIGN
□ CRystal/CRYSTAL PAVEMENT MARKERS
WHITE EDGE LINES
YELLOW/YELLOW PAVEMENT MARKERS ALONG CENTER LINE @ 20' SPACING
CRYSTAL/CRYSTAL PAVEMENT MARKERS ALONG EDGE LINES @ 20' SPACING
NO CENTERLINE MARKING
DOUBLE YELLOW CENTER LINES (DOUBLE OR SINGLE AS REQUIRED FOR PASSING & NO PASSING ZONES)
NO PASSING ZONES (DOUBLE OR SINGLE AS REQUIRED FOR PASSING & NO PASSING ZONES)
LEFT LANE REDUCTION, FOUR-LANE ROADWAY TO TWO-LANE ROADWAY

Multi-lane roadway with right lane reduction

General notes:
1. Refer to signing plans or table "A" for advance warning sign placement distance.
2. Refer to roadway standard drawings 1205.01 and 1205.08 for additional pavement marking guidance.

Table "A"

<table>
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<th>Speed (MPH)</th>
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</tbody>
</table>

- Distances shown are for level roadways. Make corrections for grades.

Legend:
- W = Width of travel lane
- "D" = Stationary sign
- "D"/4 = Direction of traffic flow
- Y = Crystal flexible delineator
- Y = Yellow flexible delineator
- P = Pavement marking symbols
- "D" = Yellow flexible delineator
- W4-2L/W4-2R = (48"x48")
- W9-1L/W9-1R = (48"x48")

Roadway standard drawing for lane reductions

Pavement markings

State of North Carolina
Division of highways
Department of transportation
Raleigh, N.C.
GENERAL NOTES:

1. Edge Lines are not required along curb and gutter locations.

2. Gore lines shall be twice the width of the normal line.

3. Refer to Roadway Standard Drawings 1205.01 and 1205.08 for additional pavement marking guidance.

4. Refer to Roadway Standard Drawing 1205.07 for additional curb ramp guidance.
MULTI-LANE ROUNDABOUT

GENERAL NOTES:

1. EDGE LINES ARE NOT REQUIRED ALONG CURB AND GUTTER LOCATIONS.
2. GORE LINES SHALL BE TWICE THE WIDTH OF THE NORMAL LINE.
3. STANDARD ARROWS SHALL BE USED INSIDE THE ROUNDABOUT.
4. REFER TO ROADWAY STANDARD DRAWING 1205.04 FOR ARROW LOCATIONS FOR APPROACHES. ADVANCE LANE DESIGNATION ARROWS SHALL BE LOCATED AT THE R3-8 (ROUNDABOUT LANE DESIGNATION) SIGN. REFER TO TYPICAL TWO LANE ROUNDABOUT SIGNING, WITH PEDESTRIANS DRAWING.
5. REFER TO ROADWAY STANDARD DRAWINGS 1205.01 AND 1205.08 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.
6. REFER TO ROADWAY STANDARD DRAWING 1205.07 FOR ADDITIONAL CURB RAMP GUIDANCE.

LEGEND

- DIRECTION OF TRAFFIC FLOW
  **** PAVEMENT MARKING SYMBOLS
1- USE THE GUIDANCE SHOWN ABOVE IN CONJUNCTION WITH THE INTERSECTION GUIDANCE SHOWN ON ROADWAY STANDARD DRAWING 1205.04.
1. Use the guidance shown above in conjunction with the intersection guidance shown on Roadway Standard Drawing 1205.04.

2. Curb ramps and median islands shall be constructed using the pavement marking and roadway plans.
GENERAL NOTES:

1. MARKERS ARE GENERALLY NOT REQUIRED ALONG EDGE LINES EXCEPT IF DESIGNATED IN THE PLANS OR DIRECTED BY THE ENGINEER. WHEN THEY ARE REQUIRED, SPACE THEM ON 20 FT. CENTERS, AND OFFSET 2 INCHES FROM THE EDGE LINE ON THE TRAFFIC SIDE.

2. PLACE CRYSTAL/RED MARKERS AT INTERSECTIONS AND INTERCHANGES WHERE WRONG WAY MOVEMENTS ARE POSSIBLE. POSITION THE RED SIDE OF THE MARKER TO FACE "WRONG-WAY" TRAFFIC. WHEN USED, PLACE CRYSTAL/RED MARKERS ALONG THE ENTIRE LENGTH OF THE PROJECT.

3. DO NOT PLACE PAVEMENT MARKERS CLOSER THAN 3 INCHES TO A PAVEMENT CONSTRUCTION JOINT (AS FEASIBLE), EXCEPT WHEN PLACED BETWEEN DOUBLE YELLOW CENTER LINES, AND ALONG YELLOW SKIP LINES ON TWO-LANE, TWO-WAY ROADWAYS WHERE PASSING IS ALLOWED IN BOTH DIRECTIONS.

4. DO NOT PLACE PAVEMENT MARKERS DIRECTLY ON PAVEMENT MARKING LINES.

5. PLACE PAVEMENT MARKERS USED IN CONJUNCTION WITH DOUBLE YELLOW CENTER LINES MID-WAY BETWEEN THE LINES. PROVIDE A GAP BETWEEN THE LINES AND THE MARKER TO REDUCE OVERSPLAYING THE MARKER DURING REPAINTING OPERATIONS.

6. MARKERS ARE NOT REQUIRED ALONG MINI-SKIP LINES IN TAPERS.

## PAVEMENT MARKER SPACING CHART

<table>
<thead>
<tr>
<th>TYPE OF PAVEMENT MARKING</th>
<th>TYPICAL SPACING (FT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SKIP LINES AND CENTER LINES ALONG THRU LANES: ALONG TANGENT SECTIONS AND HORIZONTAL CURVES LESS THAN 6°</td>
<td>80</td>
</tr>
<tr>
<td>HORIZONTAL CURVES ≥ 6°</td>
<td>40</td>
</tr>
<tr>
<td>TURN LANES: MINI-SKIP LINES</td>
<td>24</td>
</tr>
<tr>
<td>SKIP LINES</td>
<td>40</td>
</tr>
<tr>
<td>SOLID LINES</td>
<td>20</td>
</tr>
<tr>
<td>CENTER LINES</td>
<td>40</td>
</tr>
<tr>
<td>MINI-SKIP LINES AT LANE DROP APPROACHES</td>
<td>24</td>
</tr>
<tr>
<td>TWO-WAY RAMP CENTER LINES</td>
<td>40</td>
</tr>
<tr>
<td>GORE LINES</td>
<td>20</td>
</tr>
<tr>
<td>PAINTED ISLANDS: WHITE</td>
<td>20</td>
</tr>
<tr>
<td>YELLOW</td>
<td>40</td>
</tr>
<tr>
<td>RAISED MEDIAN ISLANDS</td>
<td>40</td>
</tr>
<tr>
<td>WRONG WAY RAMP ARROW</td>
<td>5</td>
</tr>
<tr>
<td>TAPERS</td>
<td>40</td>
</tr>
<tr>
<td>NARROW BRIDGES: EDGE LINE</td>
<td>20</td>
</tr>
<tr>
<td>CENTER LINE</td>
<td>40</td>
</tr>
<tr>
<td>ONE LANE BRIDGES: EDGE LINE</td>
<td>20</td>
</tr>
</tbody>
</table>

### WORK ZONE APPLICATIONS

| 2-LANE, 2-WAY ON-SITE DIVERSION | 20 FT. FOR CENTER LINE |
| ALL OTHER DIVERSIONS | 1/2 NORMAL SPACING |

5- PLACE PAVEMENT MARKERS USED IN CONJUNCTION WITH DOUBLE YELLOW CENTER LINES MID-WAY BETWEEN THE LINES. PROVIDE A GAP BETWEEN THE LINES AND THE MARKER TO REDUCE OVERSPLAYING THE MARKER DURING REPAINTING OPERATIONS.

6. MARKERS ARE NOT REQUIRED ALONG MINI-SKIP LINES IN TAPERS.

7. CRYSTAL/RED MARKERS ALONG THE ENTIRE LENGTH OF THE PROJECT.

8. DO NOT PLACE PAVEMENT MARKERS CLOSER THAN 3 INCHES TO A PAVEMENT CONSTRUCTION JOINT (AS FEASIBLE), EXCEPT WHEN PLACED BETWEEN DOUBLE YELLOW CENTER LINES, AND ALONG YELLOW SKIP LINES ON TWO-LANE, TWO-WAY ROADWAYS WHERE PASSING IS ALLOWED IN BOTH DIRECTIONS.

9. DO NOT PLACE PAVEMENT MARKERS DIRECTLY ON PAVEMENT MARKING LINES.

10. PLACE PAVEMENT MARKERS USED IN CONJUNCTION WITH DOUBLE YELLOW CENTER LINES MID-WAY BETWEEN THE LINES. PROVIDE A GAP BETWEEN THE LINES AND THE MARKER TO REDUCE OVERSPLAYING THE MARKER DURING REPAINTING OPERATIONS.

11. MARKERS ARE NOT REQUIRED ALONG MINI-SKIP LINES IN TAPERS.
**LEGEND**
- **CRYSTAL/RED PAVEMENT MARKER**
- **YELLOW/YELLOW PAVEMENT MARKER**
- **DIRECTION OF TRAFFIC FLOW**

**10'-30'/SP SKIP LINE**
- Refer to spacing chart for spacing reductions.

**3'-9'/SP MINI-SKIP LINE**
- Marker centered between mini-skip lines.

**YELLOW CENTER LINES**
- Refer to spacing chart for spacing reductions.
- Marker centered between double center lines.
- Center lines for:
  - Two-lane, two-way roadways
  - Undivided roadways
  - Two-way left turn lanes

**GORE LINES**
- Markers offset 2" from gore lines.

**DETAIL OF PAVEMENT MARKER PLACEMENT**
- **SNOWPLOWABLE RAISED PAVEMENT MARKERS**
- Markers centered between double center lines.
- Markers centered between skip lines.
- Markers位于黄线中心双线之间。

- **RAISED REFLECTIVE PAVEMENT MARKERS**
- Markers位于黄线中心双线之间。
LEGEND

- DIRECTION OF TRAFFIC FLOW
- CRYSTAL/RED PAVEMENT MARKER
- YELLOW/YELLOW PAVEMENT MARKER
- PAVEMENT MARKING SYMBOL

AUXILIARY TURN LANES

20' SPACING ALONG LANE LINES PLACED INSIDE OF THE TURN-LANE.

YELLOW PAINTED ISLANDS

40' SPACING ALONG DOUBLE YELLOW CENTER LINES

WHITE PAINTED ISLANDS

20' SPACING ALONG WHITE LINES
**TYPICAL PAVEMENT MARKER**

**TOP VIEW**

![Top View Diagram]

**FRONT VIEW**

![Front View Diagram]

**SIDE VIEW**

![Side View Diagram]

**LENS A**
- YELLOW
- CRYSTAL

**LENS B**
- YELLOW
- RED
- CRYSTAL

**GENERAL NOTES:**

1. USE A MINIMUM OF 2 SQUARE INCHES FOR THE AREA OF EACH REFLECTIVE LENS.

2. FOR A COMPLETE LISTING OF PAVEMENT MARKERS AND ADHESIVES ACCEPTABLE FOR USE IN NORTH CAROLINA CONTACT THE NCDOT SIGNING AND DELINEATION UNIT.

**LEGEND**

- DIRECTION OF TRAFFIC FLOW
TYPICAL PAVEMENT MARKER

TOP VIEW

KEEL
WEB

10" MAX.

5½" MAX.

SIDE VIEW

KEEL
WEB

CASTING
LEVELING LUG

REFLECTOR MOUNTED TO CASTING WITH ADHESIVE AND METHODS RECOMMENDED BY THE MANUFACTURER OF THE MARKERS.

CASTING MOUNTED IN SAWCUT GROOVE WITH EPOXY ADHESIVE

FRONT VIEW

KEEL
WEB

LEVELING LUG

WEB

CASTING

REFLECTOR

3½" MAX. PROJECTION ABOVE PAVEMENT SURFACE

GENERAL NOTES:

1. USE A MINIMUM OF 1.44+/- SQ. INCH AREA FOR EACH REFLECTIVE LENS.

2. SAWCUT GROOVES TO DIMENSIONS PROVIDED BY THE MANUFACTURER.

3. CONTACT ALL LEVELING LUGS TO THE PAVEMENT SURFACE.

4. REFLECTOR DIMENSIONS CAN VARY, BUT DESIGNED TO FIT IN THE CASTING AND PROVIDE THE REQUIRED REFLECTIVITY.

LEGEND

- DIRECTION OF TRAFFIC FLOW

REFLECTOR

TOP VIEW

LENS "A"
YELLOW CRYSTAL
LENS "B"
YELLOW RED

FRONT VIEW

SIDE VIEW

LEVELING LUG
### General Notes:
1. Install delineators at all locations of permanent and temporary guardrails, concrete barriers, and bridge rails.
2. Install delineators prior to allowing traffic to proceed in an area with new barrier or guardrail installations (temporary and proposed).
3. Conform color of delineators to the color of the adjacent edge lines.
4. Position delineators such that the reflective sheeting is perpendicular to the roadway.
5. Begin delineator placement 5 feet from barrier approach ends and 25 feet from guardrail approach ends.
6. Barrier delineators that fall on joints or move connections (up to 12 inches), on either side of the joint.
7. Position the guardrail and/or barrier delineators to achieve a uniform height with the barrier delineators where guardrail ties to concrete barrier.

### Delineator Spacing Requirements for Permanent and Construction Zone Guardrail, Barrier, and Bridgerail

<table>
<thead>
<tr>
<th>Spacing (ft.)</th>
<th>Rail Locations</th>
</tr>
</thead>
</table>
| 100'          | Roadway curvature < 3°  
               | Rain parallel to roadway |
| 50'           | Roadway curvature ≥ 3°  
               | Rain parallel to roadway |
| 25'           | Transitions, tapers & sections less than 200' long |
| 25'           | Bridge rails and rails at bridge approaches |

### Legend
- **Direction of Traffic Flow**
- **Yellow Delineator**
- **Crystal Delineator**
- **Guardrail or Barrier**
TYPICAL POWER DRIVEN FASTENER
INSTALLATION FOR BARRIER

1. Use a minimum 7 sq. in. reflective area for side mounted delineators.
2. Use a minimum 28 sq. in. reflective area for top mounted barrier delineators.
3. Use a minimum 7 sq. in. reflective area for top mounted guardrail delineators.
4. Use adhesive, clip on guardrail post, guardrail bolts, power driven fasteners, or other mounting methods recommended by the manufacturer as approved by the engineer.

GENERAL NOTES:

1. Use a minimum 7 sq. in. reflective area for side mounted delineators.
2. Use a minimum 28 sq. in. reflective area for top mounted barrier delineators.
3. Use a minimum 7 sq. in. reflective area for top mounted guardrail delineators.
4. Use adhesive, clip on guardrail post, guardrail bolts, power driven fasteners, or other mounting methods recommended by the manufacturer as approved by the engineer.

METHODS RECOMMENDED BY THE MANUFACTURER AS APPROVED BY THE ENGINEER.

GUARDRAIL & BARRIER DELINEATORS TYPES AND MOUNTING

ROADWAY STANDARD DRAWING FOR GUARDRAIL & BARRIER DELINEATORS

MOUNTING DETAILS

TYPICAL DELINEATORS

SOFTWARE STANDARD DRAWING FOR ROADWAY STANDARD DRAWING FOR GUARDRAIL & BARRIER DELINEATORS

1-18 1-18
GENERAL NOTES:

1. GUARDRAIL END DELINEATION IS REQUIRED ON ALL APPROACH AND TRAILING.

2. TYPE 3 OBJECT MARKER SHEETING SHALL CONSIST OF ALTERNATING BLACK AND RETROREFLECTIVE YELLOW STRIPES SLOPING DOWN AT 45 DEGREES TOWARDS THE SIDE OF THE OBSTRUCTION ON WHICH TRAFFIC IS TO PASS.

GRADE C YELLOW RETROREFLECTIVE SHEETING WITH PRESSURE SENSITIVE ADHESIVE BACKING.

MINIMUM OF 2 SQ.FT.

ON CURVED END SECTIONS

OR

GRADE C TYPE 3 OBJECT MARKER SHEETING, SEE NOTE 2

GRADE C TYPE 3 OBJECT MARKER SHEETING, SEE NOTE 2

GUARDRAIL BUFFER END SECTION

36" MIN.

8" MIN.

OR

GUARDRAIL BUFFER END SECTION

GRADE C YELLOW REFLECTIVE SHEETING WITH PRESSURE SENSITIVE ADHESIVE BACKING.

COVER ENTIRE PORTION OF SQUARE END SECTION.
# Alternate 1

- **OM1-1**: Reflectors on yellow background
- **OM1-2**: Reflectors on black background

**Notes:**
1. Material: .125" aluminum panel.

# Alternate 2

- **OM2-1**: Reflectors on Grade C white retroreflective sheeting
- **OM2-2**: Grade C yellow retroreflective sheeting

**Notes:**
1. Material: .125" aluminum panel.

# Alternate 3

- **OM3-L**: 12" x 36"
- **OM3-C**: 12" x 36"
- **OM3-R**: 12" x 36"

**Notes:**
1. Grade C yellow retroreflective sheeting with alternating black and yellow stripes.
2. Stripes slope downward at 45 degrees toward the side of the obstruction which traffic is to pass.

# Alternate 4

- **OM4-1**: Nine 3" min. dia. yellow prismatic plastic reflectors
- **OM4-2**: Reflectors on black background
- **OM4-3**: Grade C red retroreflective sheeting

**Notes:**
1. Material: .125" aluminum panel.
TYPE 1 OR TYPE 3 MARKERS FOR OBSTRUCTIONS WITHIN THE ROADWAY

TYPICAL APPLICATION OF TYPE 1 OR TYPE 3 OBJECT MARKERS IS THE DELINEATION OF SIGN SUPPORTS OR RAISED ISLANDS.

4' MIN.

TYPE 1 OBJECT MARKER SHOWN

RAISED ISLAND

TRAVELWAY

TYPE 2 OR TYPE 3 MARKERS FOR OBSTRUCTIONS ADJACENT TO THE ROADWAY

TYPICAL APPLICATIONS OF TYPE 2 OR TYPE 3 OBJECT MARKERS INCLUDES DELINEATION OF BRIDGE PIERS, ABUTMENTS, HANDRAILS, CULVERT HEADWALLS, NARROW SHOULDERS, DROP-OFFS, OR OTHER UNDESIRABLE CONDITIONS WHEN GUARDRAIL OR OTHER ROADSIDE PROTECTION IS NOT IN PLACE.

TYPICAL APPLICATION OF TYPE 1 OR TYPE 3 OBJECT MARKERS INCLUDES DELINEATION OF SIGN SUPPORTS OR RAISED ISLANDS.

4' MIN.

TYPE 2 OBJECT MARKER MOUNTED ON SIGN POST

MEDIAN

TRAVELWAY

4' MIN.

TYPE 2 OBJECT MARKER MOUNTED ON U-POST

TRAVELWAY

4' MIN.

TYPE 3 OBJECT MARKER MOUNTED ON U-POST

3 MARKERS MINIMUM

6' TYP. 6' TYP.

7' U-CHANNEL POSTS (1.12 LB/FT) PAVEMENT

TYPE 4 MARKERS FOR END OF ROADWAY

LEGEND

OBJECT MARKER

DIRECTION OF TRAFFIC FLOW
GENERAL NOTES:

1. USE TUBULAR MARKERS THAT ARE CIRCULAR IN SHAPE AND HAVE A MINIMUM HEIGHT OF 36" WITH A BROADENED BASE.

2. USE TUBULAR MARKERS THAT HAVE A MINIMUM HEIGHT OF 42" ON ROADWAYS WITH POSTED SPEED LIMITS GREATER THAN 50 MPH.

3. SPACING OF TUBULAR MARKERS SHALL BE DETERMINED BY THE ENGINEER ON A CASE BY CASE BASIS.

4. SECURE/INSTALL TUBULAR MARKERS TO THE PAVEMENT SURFACE USING EPOXY OR OTHER APPROVED TYPES OF ADHESIVES.
FLEXIBLE DELINEATOR ASSEMBLY

POST
SECTION VIEW A-A

REFLECTIVE SHEETING
16 sq. in. MIN.
REFLECTIVE AREA

3" MIN. WIDTH
FLEXIBLE DELINEATOR POST

3½" TO 4½"

DIRECTION OF TRAFFIC

A A

BASE SUPPORT DRIVEN
TO GROUND LINE

18"

6½" DIAM. HOLES
U-CHANNEL BASE SUPPORT

LATERAL OFFSETS

FLEXIBLE DELINEATOR

E.O.T.

4'-0" TO TOP
OF SHEETING

PAVED SHLD.

SIDE SLOPE

SHOULDER POINT

RAMP

BASE SUPPORT DRIVEN
TO GROUND LINE

3½" TO 4½"

3½" TO 4½"

RAMP

FACE OF CURB

BERM

SHOULDER POINT

Curb and Gutter

GENERAL NOTES:
1- PLACE DELINEATORS AT CONSTANT DISTANCE FROM TRAVELWAY.

LEGEND

W = WIDTH OF TRAVEL LANE
E.O.T. = EDGE OF TRAVEL
• DIRECTION OF TRAFFIC FLOW

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

DEPT. OF TRANSPORTATION
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR
FLEXIBLE DELINEATORS
INSTALLATION
### TABLE A

<table>
<thead>
<tr>
<th>Horizontal Curvature</th>
<th>Delineator Spacing (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangent to 0°30’</td>
<td>200’</td>
</tr>
<tr>
<td>Greater than 0°30’ to 4°00’</td>
<td>150’</td>
</tr>
<tr>
<td>RAMP ACCeleration DECELERATION Lanes</td>
<td>200’</td>
</tr>
<tr>
<td>RAMP GORES</td>
<td>50’</td>
</tr>
</tbody>
</table>

### TABLE B

<table>
<thead>
<tr>
<th>Curve Radius (R) (ft)</th>
<th>Delineator Spacing (S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>20</td>
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<tr>
<td>150</td>
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<td>1300</td>
<td>105</td>
</tr>
<tr>
<td>1400</td>
<td>110</td>
</tr>
</tbody>
</table>

- Spacing rounded to nearest 5 ft.
- Min. spacing = 20 ft.
- Spacing for specific radii may be interpolated from Table B or computed from the formula $S = \frac{3}{2} \sqrt{R - 50}$ where $S =$ spacing, $R =$ radius, in feet.

In advance of and beyond a curve, the spacing of the first delineator is 2S, the second 3S, and the third 6S but not to exceed 300 feet. The first delineators are considered the ones nearest to the ends of the curve.

### General Notes:

1. Flexible delineators are required only at interchanges.
2. Flexible delineators are not required where they fall behind guardrail, or where adequate fixed source lighting is provided.
GENERAL NOTES:
1. CONTINUE DELINEATORS ON RAMPS AND LOOPS, USING TABLES A OR B ON STD. DWG. 1267.02 AND THE FOLLOWING REQUIREMENTS:

PLACE CRYSTAL DELINEATORS ON RIGHT SIDE OF RAMP FOR ALL RIGHT AND LEFT HAND CURVES FOR RAMPS WITH CURVE RADI 1000 FT. OR GREATER.

PLACE YELLOW DELINEATORS ON LEFT SIDE OF CURVE (CONVEX SIDE) RANGING FROM THE P.C. OR S.C. TO THE P.T. OR C.S. IN ADVANCE OF AND BEYOND THE CURVE FOR RAMPS AND LOOPS WITH RIGHT HAND CURVE RADIUS LESS THAN 1000 FT. CONTINUE WITH CRYSTAL DELINEATORS ON THE RIGHT SIDE WITH A MINIMUM OVERLAP OF 2 DELINEATORS WITHIN THE CURVE. CONTINUE THE CRYSTAL DELINEATORS THROUGH THE RIGHT SIDE OF THE CURVE WHEN THE GAP BETWEEN CRYSTAL DELINEATORS IS LESS THAN 500 FT.

LEGEND
- E.O.T. = EDGE OF TRAVEL
- CRYSTAL DELINEATOR
- YELLOW DELINEATOR
- DIRECTION OF TRAFFIC FLOW
GENERAL NOTES:
1. CONTINUE DELINEATORS ON RAMPS AND LOOPS, USING TABLES A OR B ON STD. DWG. 1267.02 AND THE FOLLOWING REQUIREMENTS:

PLACE CRYSTAL DELINEATORS ON RIGHT SIDE OF RAMP FOR ALL RIGHT AND LEFT HAND CURVES FOR RAMPS WITH CURVE RADIUS 1000 FT. OR GREATER.

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GENERAL NOTES:
1. CONTINUE DELINEATORS ON RAMPS AND LOOPS, USING TABLES A OR B ON STD. DWG. 1267.02 AND THE FOLLOWING REQUIREMENTS:

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