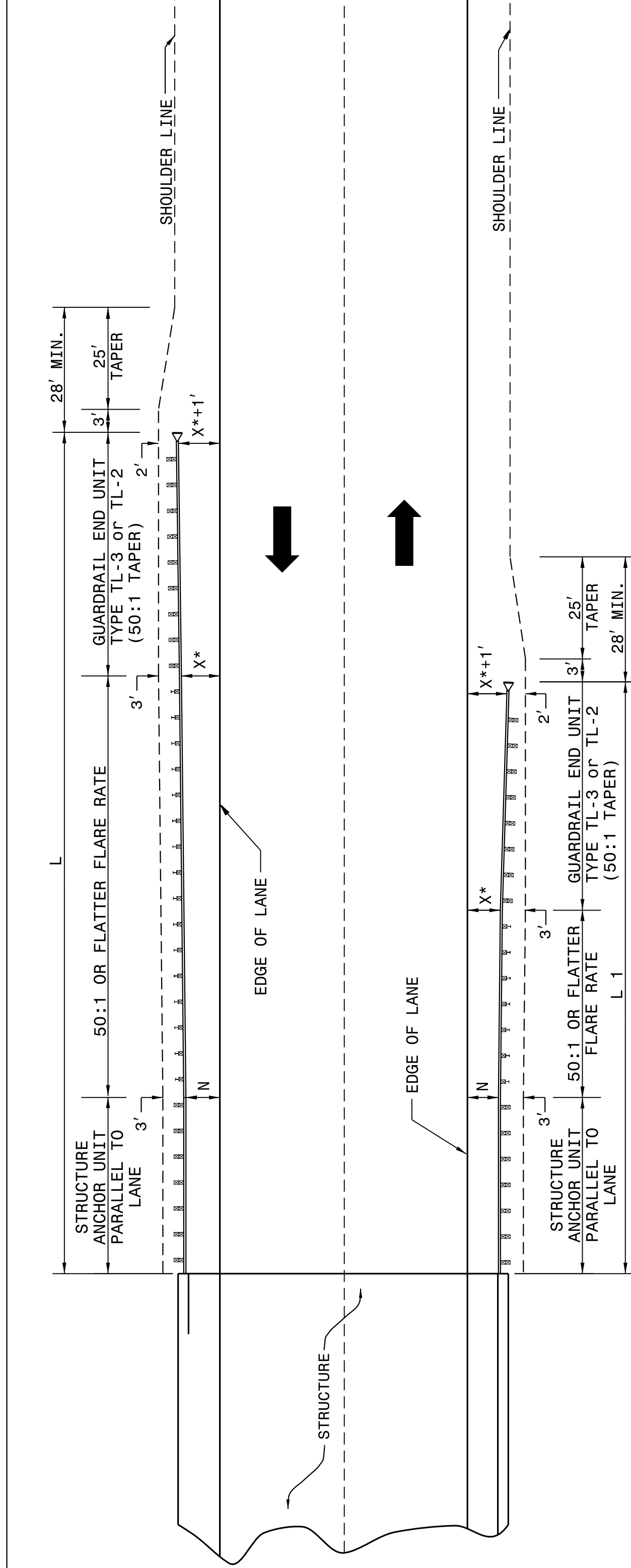


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ROADWAY DETAIL DRAWING FOR  
**GUARDRAIL PLACEMENT**

SHEET 4 OF 11  
**862D01**



ROADWAY DETAIL DRAWING FOR  
**GUARDRAIL PLACEMENT**

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SHEET 4 OF 11  
**862D01**

**GUARDRAIL INSTALLATION AT BRIDGE APPROACHES FOR TWO-LANE, TWO-WAY TRAFFIC**

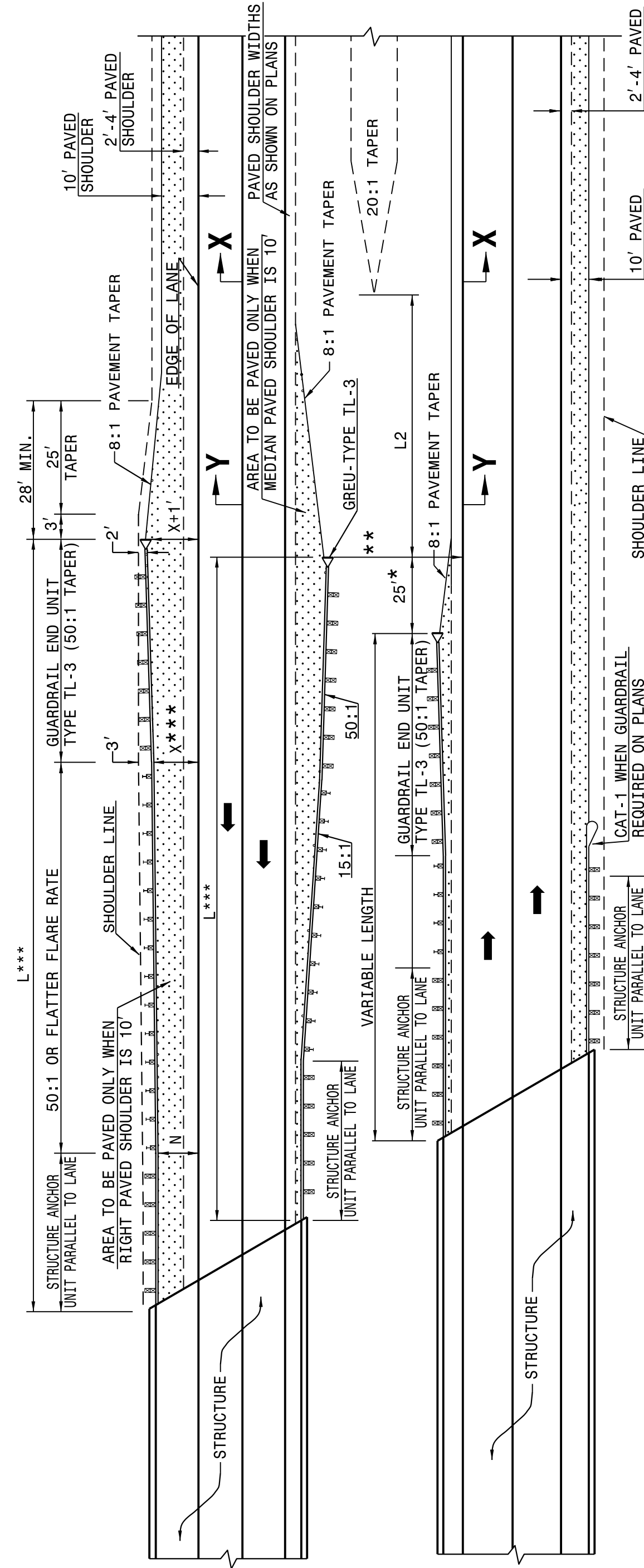
| DESIGN SPEED (MPH) | "L" APPROACH LENGTH (FT.) |                            | "L" TRAILING LENGTH (FT.) |                            |
|--------------------|---------------------------|----------------------------|---------------------------|----------------------------|
|                    | DESIGN YEAR ADT OVER 2000 | CURRENT YEAR ADT UNDER 400 | DESIGN YEAR ADT OVER 2000 | CURRENT YEAR ADT UNDER 400 |
| 70                 | 362.5'                    | 362.5'                     | 350.0'                    | 287.5'                     |
| 60                 | 300.0'                    | 287.5'                     | 275.0'                    | 225.0'                     |
| 50                 | 212.5'                    | 212.5'                     | 200.0'                    | 162.5'                     |
| 40                 | 175.0'                    | 150.0'                     | 137.5'                    | 112.5'                     |
| X*                 | 8'                        | 6'                         | 4'                        | 4'                         |
|                    |                           |                            | 8'                        | 6'                         |
|                    |                           |                            | 4'                        | 4'                         |

\* USE FLARE RATE AS THE CONTROL IF THE "X" DISTANCE IS NOT OBTAINED. ("X" IS BASED ON SHOULDER WIDTHS IN THE HIGHWAY DESIGN BRANCH MANUAL, PART 1, 1-4B, F1).  
 \*\* "N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL WHERE GUARDRAIL IS PARALLEL TO LANE.  
 SEE STD. 862.03 FOR STRUCTURE ANCHOR UNITS  
 FOR POSTED SPEEDS ≥ 45mph USE GREU TYPE TL-3  
 FOR POSTED SPEEDS < 45mph USE GREU TYPE TL-2

**LENGTHS AND OFFSETS FOR PROPOSED GUARDRAIL AT TWO LANE - TWO WAY LOCATIONS**

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FOR POSTED SPEEDS ≥ 45mph USE GREU TYPE TL-3  
 FOR POSTED SPEEDS < 45mph USE GREU TYPE TL-2

**DIMENSIONS FOR LENGTH OF GUARDRAIL APPROACHING DUAL LANE BRIDGES**

| MEDIAN WIDTH | -L-*** |        | -L2- DIM. |
|--------------|--------|--------|-----------|
|              | 60 MPH | 50 MPH |           |
| 30'          | 300.0' | 250.0' | 80.0'     |
| 36'          | 300.0' | 250.0' | 60.0'     |
| 40' & ABOVE  | 300.0' | 250.0' | 40.0'     |

NOTES: \* MINOR VARIATION TO THE 25'-0" DIMENSION IS PERMISSIBLE TO ACCOMMODATE THE 12'-6" IN GUARDRAIL LENGTHS.  
 \*\* NO GUARDRAIL IS REQUIRED ON THE TRAILING END WHEN THIS DISTANCE EXCEEDS CLEAR ROADSIDE RECOVERY AREA FOR THE APPROPRIATE DESIGN SPEED.  
 \*\*\* BASED ON "X" OF 12' USE FLARE RATE AS THE CONTROL IF THE "X" DISTANCE IS NOT OBTAINED. ("X" IS BASED ON SHOULDER WIDTHS IN THE HIGHWAY DESIGN BRANCH MANUAL, PART 1, 1-4B, F1A).  
 "N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL WHERE GUARDRAIL IS PARALLEL TO LANE.  
 THE DESIGN LAYOUT FOR LENGTHS SHOWN ON THIS STANDARD ARE MINIMUM DESIGN LENGTHS.  
 SEE SHEET 1 OF 12 FOR SECTIONS XX, YY  
 SEE STD. 862.03 FOR STRUCTURE ANCHOR UNITS

**DETAIL OF GUARDRAIL APPROACHING DUAL LANE BRIDGES**

SHEET 3 OF 11  
**862D01**

DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED

**CONTRACT STANDARDS AND DEVELOPMENT UNIT**  
 Office 919-707-6950 FAX 919-250-4119

**SEE TITLE BLOCK**

ORIGINAL BY: J HOWERTON DATE: 06-22-12  
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