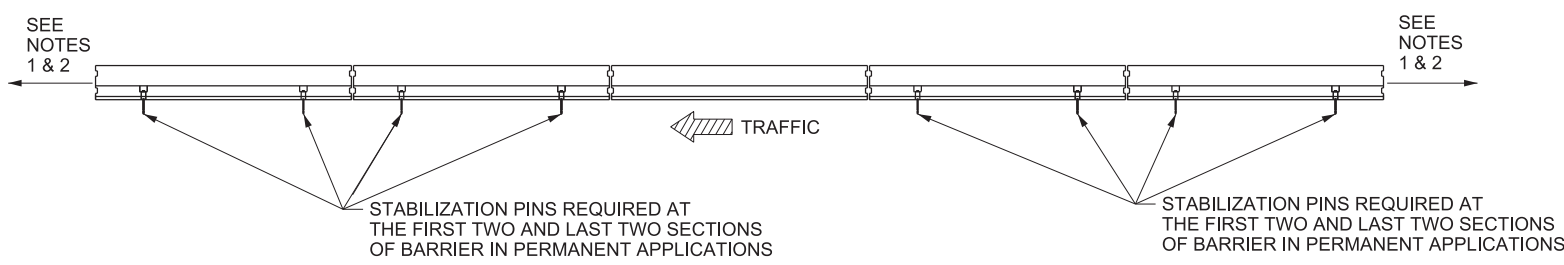
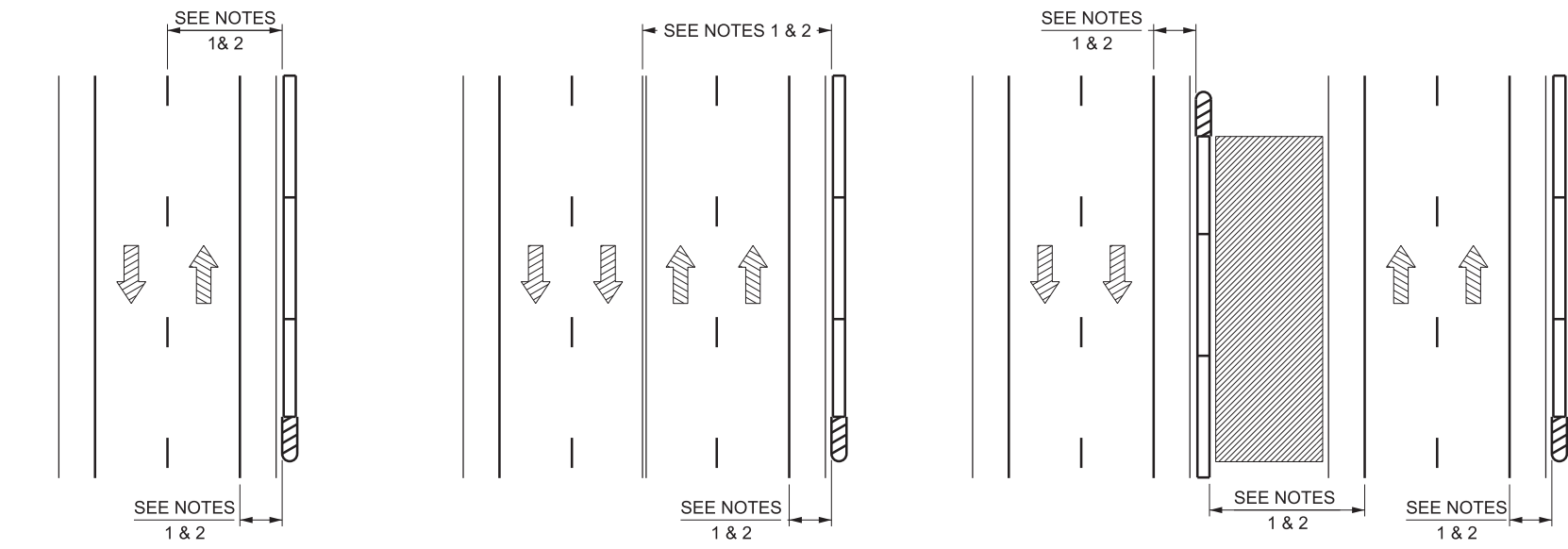


BURIED END SECTION PLAN



TYPICAL ELEVATION



TWO LANE / TWO WAY

MULTI-LANE ARTERIAL

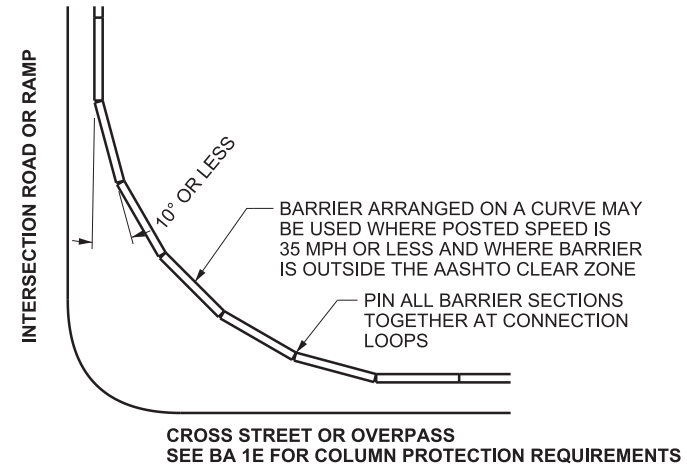
MULTI-LANE ARTERIAL WITH TRAVERSABLE MEDIAN

LENGTH OF NEED (LON) FORMULAS FOR BURIED END SECTION

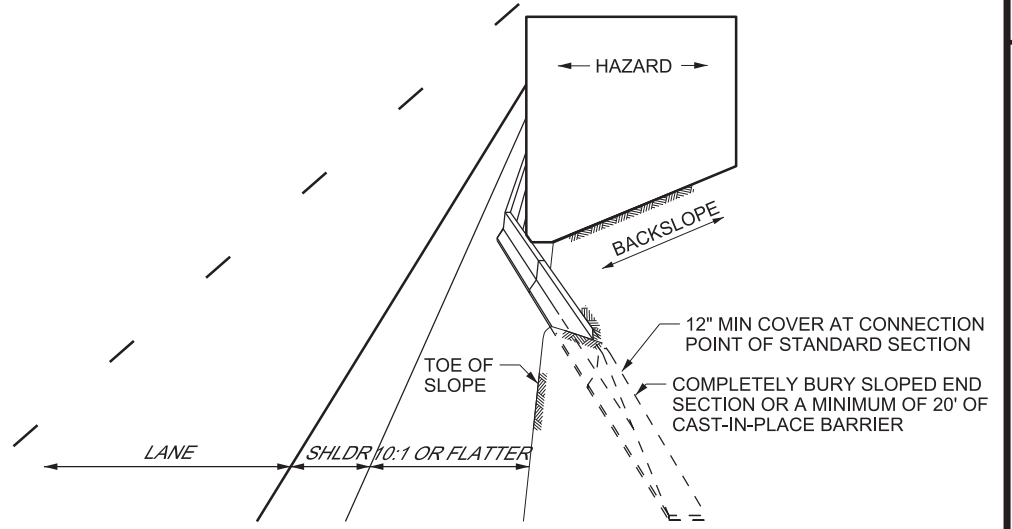
BACKSLOPE STEEPER THAN 3:1
 $LON = FLR \times D1$

BACKSLOPE 3:1 TO A MINIMUM 4:
 $\geq 50 \text{ MPH "LON"} = 450 - (15 \times D2)$
 $\leq 45 \text{ MPH "LON"} = 250 - (15 \times D2)$

LON: LENGTH OF NEED
 FLR: BARRIER FLARE RATE
 D1: DISTANCE FROM FACE OF BARRIER TO FACE OF HAZARD OR DITCH BOTTOM
 D2: DISTANCE FROM EDGE OF TRAVEL LANE TO FACE OF HAZARD OR DITCH BOTTOM



CURVED LAYOUT



BURIED END SECTION PERSPECTIVE VIEW

- GENERAL NOTES:**
- INSTALL APPROPRIATE END TREATMENT, CRASH CUSHION, OR END SECTION WHEN BARRIER END IS WITHIN THE MAXIMUM REQUIRED AASHTO CLEAR ZONE. DO NOT EXTEND FLARED BARRIER IN ORDER TO MOVE END OF BARRIER OUTSIDE OF CLEAR ZONE TO AVOID USING END PROTECTION.
 - SELECT APPROPRIATE END TREATMENT OR CRASH CUSHION FROM THE GUIDELINES FOR CRASH CUSHIONS AND BARRIER END TREATMENTS WHEN DESIGN SPEED EXCEEDS 40 MPH. USE AN END TREATMENT WHEN RECOVERY AREA BEHIND SELECTED SYSTEM IS ACHIEVED.
 - APPROACH END NON-DIVIDED ROADWAYS: INSTALL A SLOPED END SECTION WHEN DESIGN SPEED FOR ROADWAY IS 40 MPH OR LESS. USE APPROPRIATE SECTION FOR BARRIER TYPE.
 - TRAILING END NON-DIVIDED ROADWAYS: INSTALL A SLOPED END SECTION ON TRAILING ENDS WHEN AN END TREATMENT OR CRASH CUSHION IS NOT REQUIRED.
 - INSTALL APPLICABLE BARRIER TRANSITION PRIOR TO INSTALLING W-BEAM, END TREATMENT, OR CRASH CUSHION WHEN A CONSTANT SLOPE SYSTEM IS USED.
 - PLACEMENT WITH CURBS:
 - 32 INCH BARRIER: 10-FT SET BACK REQUIRED FROM FACE OF CURB.
 - 42 INCH AND 54 INCH BARRIER: 10-FT SET BACK RECOMMENDED FROM FACE OF CURB.
 - SLOPED END SECTION DOES NOT NEED TO BE PLACED ON A PAVED SURFACE WHEN USED IN A BURIED END SECTION APPLICATION.

SUPPLEMENTAL DRAWING

NO.	DATE	APPR.	REMARKS
1	08/29/19		

REVISONS
 SDD MOVED DESIGN ONLY NOTES TO RDM SHEETS.

UTAH DEPARTMENT OF TRANSPORTATION
 STANDARD DRAWINGS FOR ROAD AND BRIDGE CONSTRUCTION
 SALT LAKE CITY, UTAH

RECOMMENDED FOR APPROVAL: [Signature]
 CHAIRMAN STANDARDS COMMITTEE
 APPROVED

DATE: AUG. 29, 2019
 DEPUTY DIRECTOR

CONCRETE BARRIER LAYOUT

STANDARD DRAWING TITLE

STD. DWG. NO. **BA 1D**