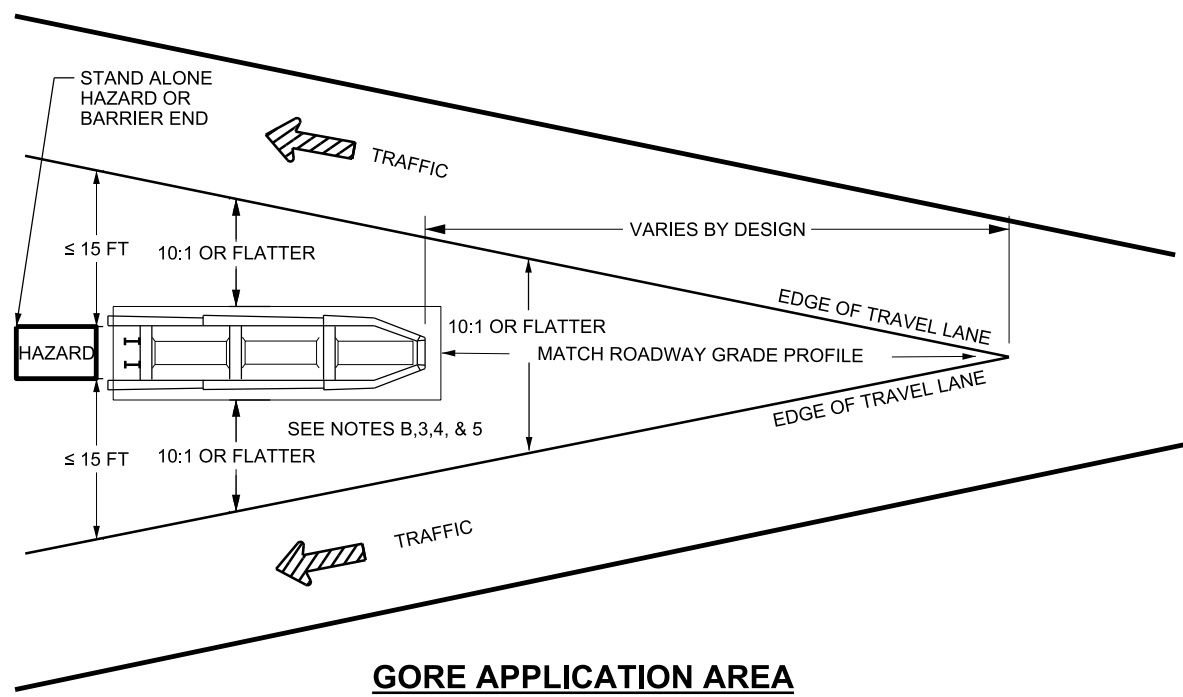
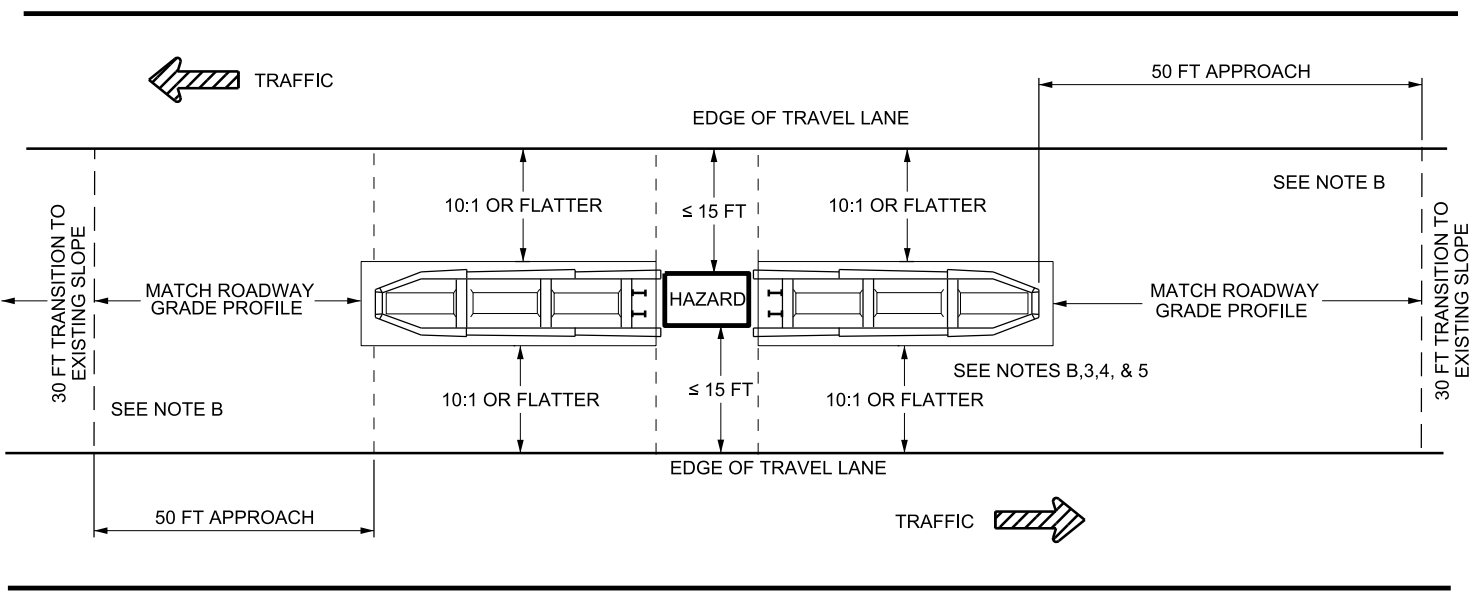


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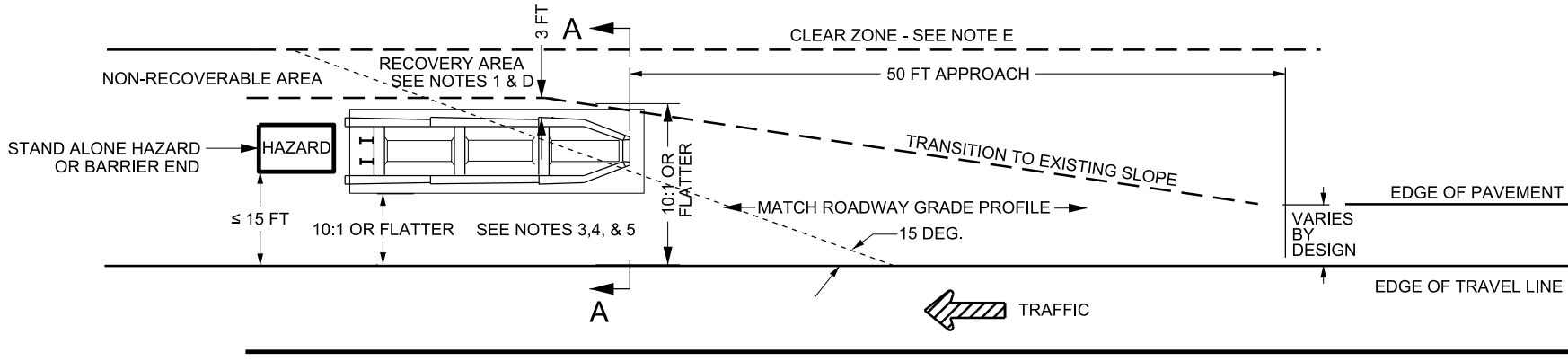


GORE APPLICATION AREA



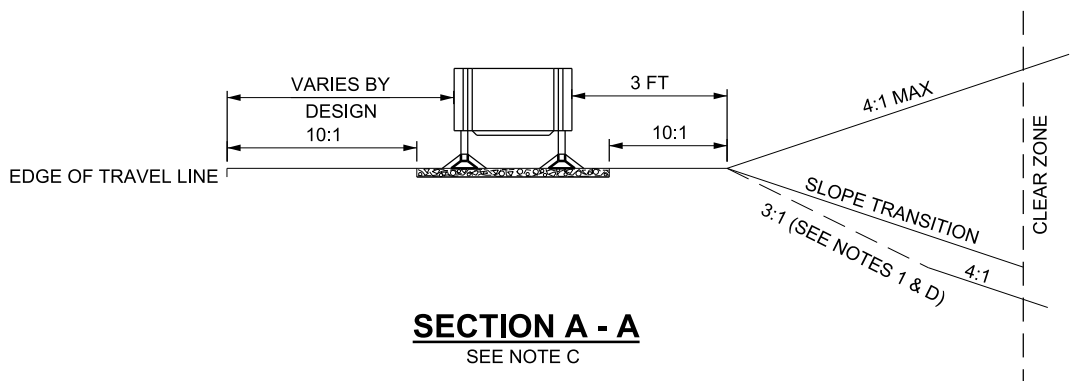
MEDIAN APPLICATION

SEE NOTE C



SHOULDER APPLICATION

SEE NOTE C



SECTION A - A

SEE NOTE C

DESIGN-ONLY NOTES:

- A. REFER TO GUIDELINES FOR CRASH CUSHIONS AND BARRIER END TREATMENTS FOR APPROVED SYSTEMS AND FOR SPECIFIC APPLICATION DETAILS.
- B. ALL APPLICATIONS REQUIRE THE USE OF A 10:1 SLOPE OR FLATTER TO THE FRONT AND SIDE APPROACHES. USE A 10:1 OR FLATTER SLOPE AT THE REAR OF THE SYSTEM WHEN TRAFFIC ALSO APPROACHES FROM THE REAR OF THE SYSTEM.
- C. PROTECT BARRIER ENDS WITH A W-BEAM GUARDRAIL TRANSITION AND TYPE G OR TYPE H W-BEAM END TREATMENT OR TYPE F END TREATMENT AS FIRST OPTION. PROTECT CONCRETE BARRIER END USING A CRASH CUSHION TYPES A, B, OR D WHEN THE INSTALLATION REQUIREMENTS OF A W-BEAM GUARDRAIL TRANSITION AND W-BEAM END TREATMENT OR TYPE F END TREATMENT CANNOT BE MET.
- D. MEET SLOPE REQUIREMENTS AS DETAILED IN APPLICABLE UDOT ROADWAY DESIGN MANUAL DRAWINGS IN RECOVERY AREA. THE ADDITIONAL INFORMATION BELOW ARE THE MINIMUM ACCEPTABLE SLOPE REQUIREMENTS IN RECOVERY AREA.
 - 1. RECOVERY AREA IS THE AREA BEHIND THE CRASH CUSHION AND BARRIER SYSTEM EXTENDING FROM THE APPROACH END OF CRASH CUSHION TO THE END OF THE CALCULATED LENGTH OF NEED.
 - 2. USE A 4:1 OR FLATTER FILL SLOPE IN RECOVERY AREA. USE A MAXIMUM 3:1 FORESLOPE AND ESTABLISH RECOVERY AREA AT BOTTOM OF 3:1 SLOPE IF IMPRACTICAL. A 4:1 OR FLATTER IN RECOVERY AREA REQUIRED WHEN USED WITH A BACKSLOPE.
- E. MAINTAIN AASHTO CLEAR ZONE REQUIREMENTS.

NOTES:

- 1. COMPLETE SLOPE PREPARATIONS PRIOR TO INSTALLING SYSTEM.
- 2. USE A TRANSITION ELEMENT, ACCORDING TO MANUFACTURER'S SPECIFICATIONS, WHEN TRAFFIC APPROACHES THE REAR OF SYSTEM.
- 3. USE MANUFACTURER'S SPECIFICATIONS FOR PAD AND BACKUP REQUIREMENTS. A CONCRETE PAD IS REQUIRED FOR PERMANENT INSTALLATION OF TYPE A, B & D CRASH CUSHIONS.
- 4. CONSTRUCT PAD TO MEET CROSS SLOPE LISTED WITHIN THE PLAN SET. CONSTRUCT PAD NOT TO EXCEED SYSTEM MANUFACTURER'S CROSS SLOPE REQUIREMENTS IF CROSS SLOPE IS STEEPER THAN 10:1. GRADING WILL BE COMPLETED FLUSH TO THE TOP OF THE PAD.
- 5. INSTALL PROPER MARKINGS ACCORDING TO STD DWG CC 1.
- 6. INSTALL A CONSTANT SLOPE TRANSITION SECTION BEFORE INSTALLING CRASH CUSHION OR END TREATMENT WHEN CONSTANT SLOPE TYPE BARRIER IS INSTALLED. REFER TO BA 3 SERIES STD DWGS.

REVISIONS

NO.	DATE	APPR.	REMARKS

UTAH DEPARTMENT OF TRANSPORTATION

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

RECOMMENDED FOR APPROVAL
Randall D. Park
CHAIRMAN STANDARDS COMMITTEE
APPROVED

DATE
AUG 30, 2018

DEPUTY DIRECTOR
[Signature]
DATE
AUG 30, 2018

**DETAILS FOR
PLACEMENT
CRASH CUSHIONS
TYPE A, B, AND D**

STANDARD DRAWING TITLE

STD. DWG. NO.

CC 4A

SUPPLEMENTAL DRAWING