

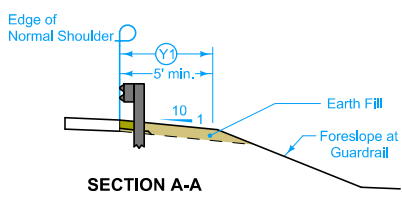
PLAN

Construct earth fill in conformance with requirements for construction of embankments.

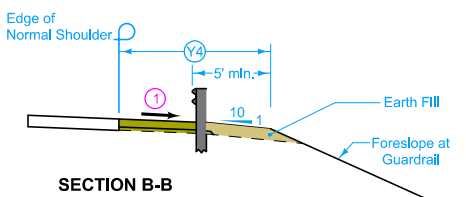
Construct paved shoulder in front of guardrail as shown on Typical 7156.

Guardrail may or may not be attached to face of obstacle.

- ① Match slope of adjacent shoulder.
- ⊗ Measured from Location Station.
- Ⓨ Distance from edge of normal shoulder to toe of 10:1 slope



SECTION A-A



SECTION B-B

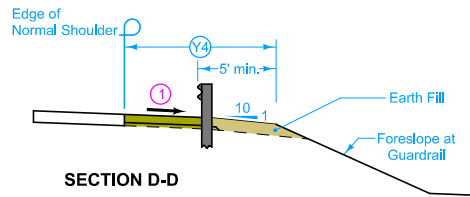
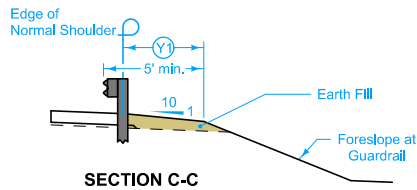
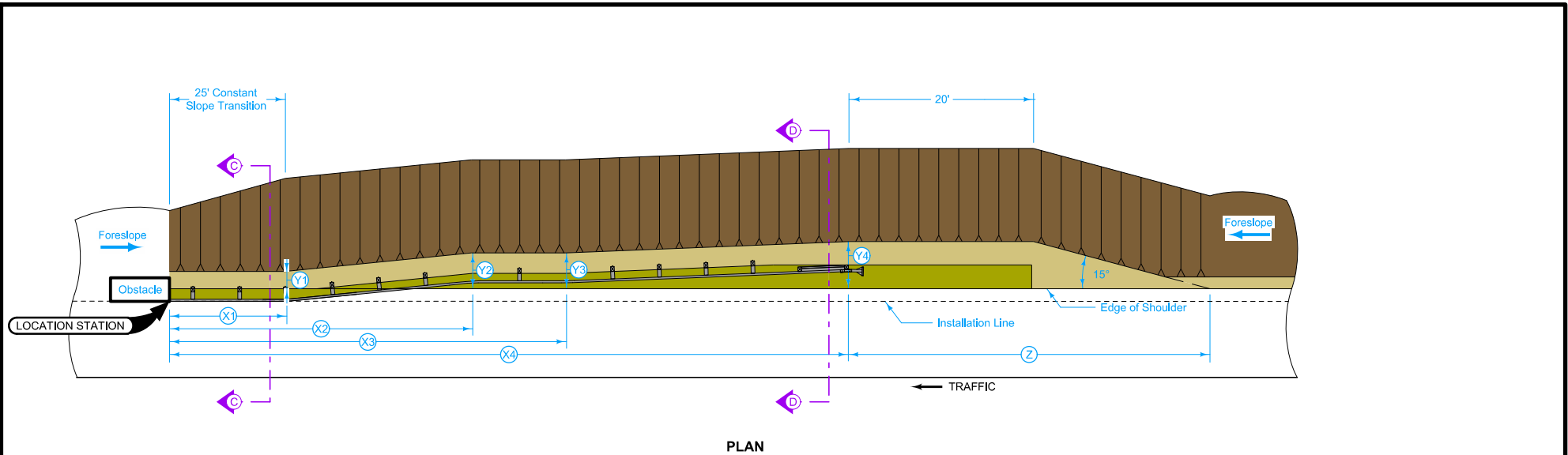
LEGEND	
	Foreslope at Guardrail
	Slope - 10:1
	Match adjacent shoulder.

Ⓨ4 feet	Ⓩ feet
5	39
6	43
7	47
8	50
9	54
10	57
11	61
12	65
13	69
14	72
15	76
16	80
17	83
18	87
19	91
20	95

Possible Tabulation:
107-23

GUARDRAIL INSTALLATION LINE AT OR WITHIN 10 FEET OF SHOULDER

	REVISION 1 10-20-15
	STANDARD ROAD PLAN
	EW-301 SHEET 1 of 5
<small>REVISIONS: Changed slope in front of guardrail from a 10 to 1 to match the slope of the adjacent shoulder. Added note 3 on Sheet 4.</small>	
<small>APPROVED BY DESIGN METHODS ENGINEER</small>	
GUARDRAIL GRADING	



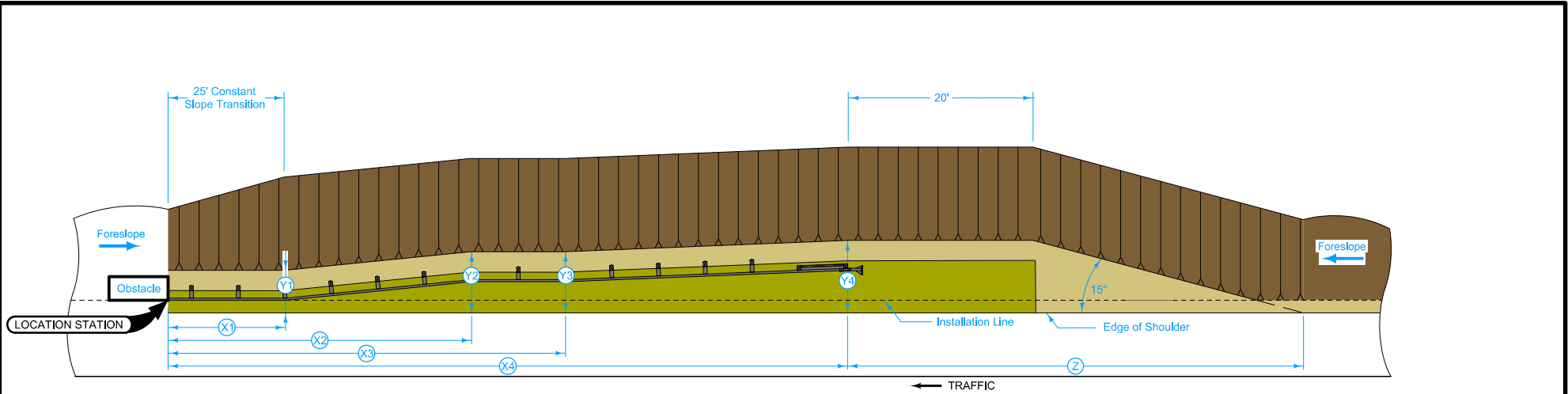
LEGEND	
	Foreslope at Guardrail
	Slope - 10:1
	Match adjacent shoulder.

- ① Match slope of adjacent shoulder.
- ⓧ Measured from Location Station.
- Ⓨ Distance from edge of normal shoulder to toe of 10:1 slope

Ⓨ4	Ⓩ
feet	feet
5	39
6	43
7	47
8	50
9	54
10	57
11	61
12	65
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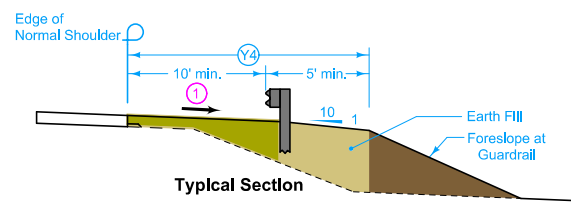
GUARDRAIL INSTALLATION LINE WITHIN SHOULDER

 STANDARD ROAD PLAN	REVISION
	1 10-20-15
	EW-301
SHEET 2 of 5	
REVISIONS: Changed slope in front of guardrail from a 10 to 1 to match the slope of the adjacent shoulder. Added note 3 on Sheet 4.	
 <small>APPROVED BY DESIGN METHODS ENGINEER</small>	
GUARDRAIL GRADING	



PLAN

- ① Match slope of adjacent shoulder.
- ⓧ Measured from Location Station.
- Ⓨ Distance from edge of normal shoulder to toe of 10:1 slope



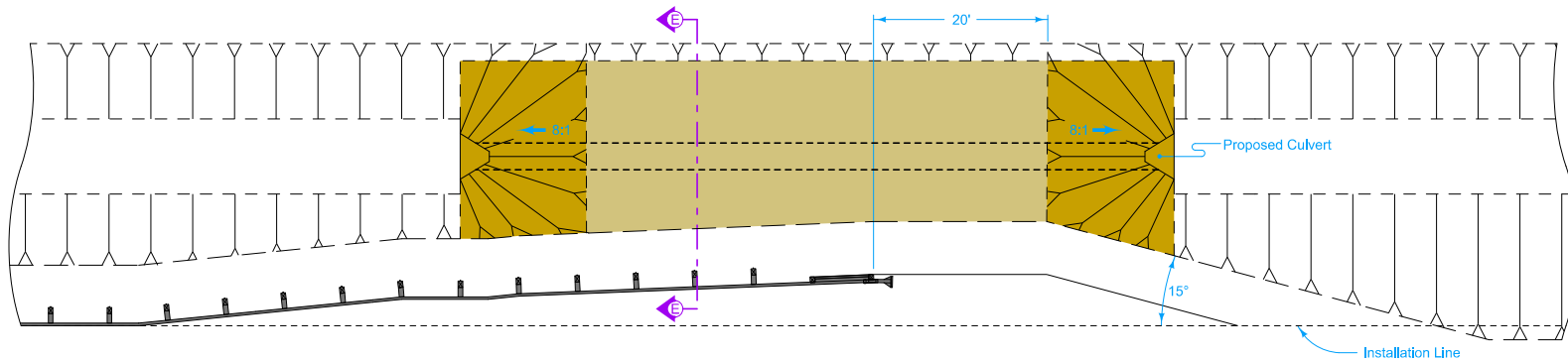
Typical Section

LEGEND	
	Foreslope at Guardrail
	Slope - 10:1
	Match adjacent shoulder.

Ⓨ4	Ⓩ
feet	feet
5	39
6	43
7	47
8	50
9	54
10	57
11	61
12	65
13	69
14	72
15	76
16	80
17	83
18	87
19	91
20	95

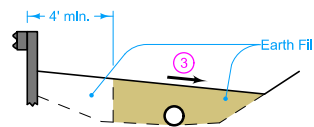
GUARDRAIL INSTALLATION LINE BEYOND 10 FEET FROM SHOULDER

 STANDARD ROAD PLAN	REVISION
	1 10-20-15
	EW-301
SHEET 3 of 5	
<small>REVISIONS: Changed slope in front of guardrail from a 10 to 1 to match the slope of the adjacent shoulder. Added note 3 on Sheet 4.</small>	
 <small>APPROVED BY DESIGN METHODS ENGINEER</small>	
GUARDRAIL GRADING	



PLAN

- ② See sheets 1, 2, or 3 for unshaded areas.
- ③ 10:1 preferred; no steeper than 6:1.



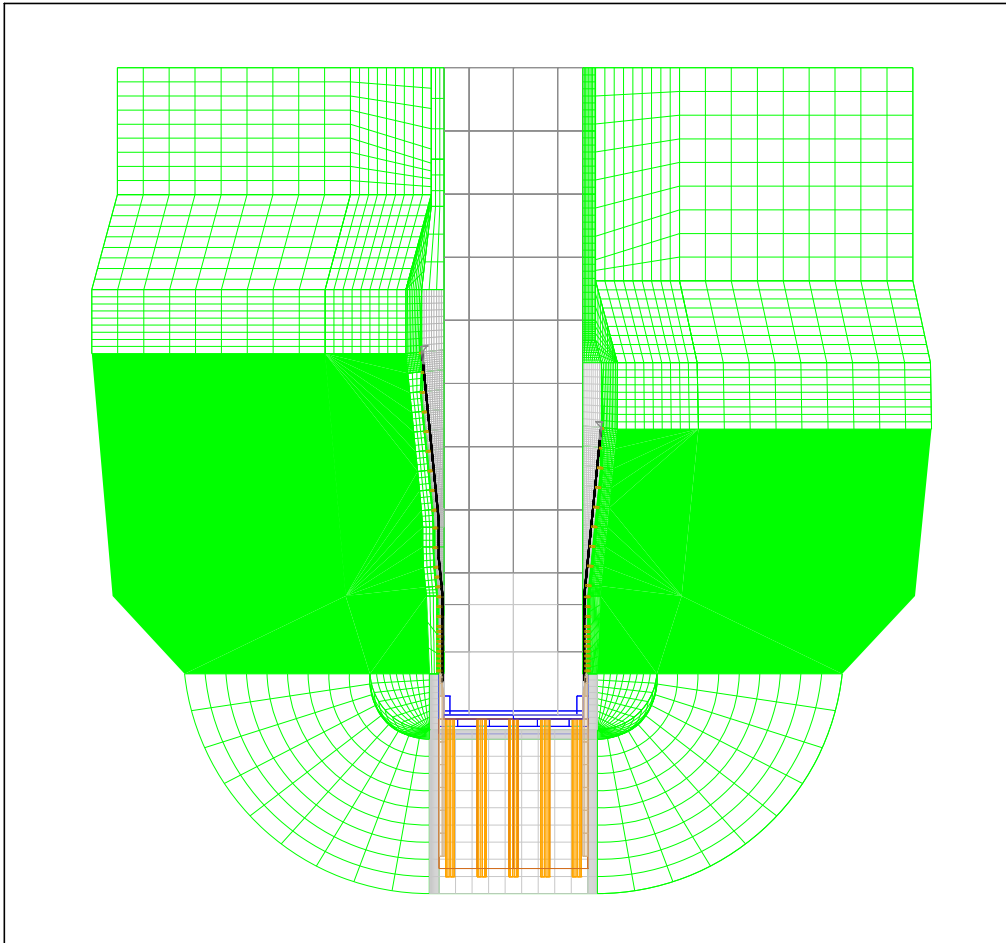
SECTION E-E

LEGEND	
	Slope - 10:1
	Slope - 8:1


FILL OVER PIPE CULVERT ②

 STANDARD ROAD PLAN	REVISION 1 10-20-15
	EW-301
	SHEET 4 of 5
<small>REVISIONS: Changed slope in front of guardrail from a 10 to 1 to match the slope of the adjacent shoulder. Added note 3 on Sheet 4.</small>	
 <small>APPROVED BY DESIGN METHODS ENGINEER</small>	
GUARDRAIL GRADING	

This image can be viewed in 3D on the the ERL or at our website <http://www.iowadot.gov/design/stdrdpIn.htm>



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 STANDARD ROAD PLAN	REVISION	1	10-20-15
	EW-301		
	SHEET 5 of 5		
REVISIONS: Changed slope in front of guardrail from a 10 to 1 to match the slope of the adjacent shoulder. Added note 3 on Sheet 4.			
<i>Brian Smith</i> APPROVED BY DESIGN METHODS ENGINEER			
GUARDRAIL GRADING			