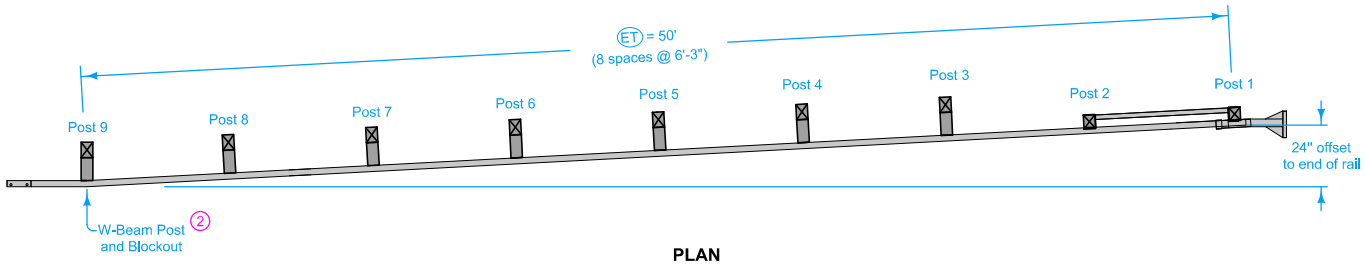
Local Systems

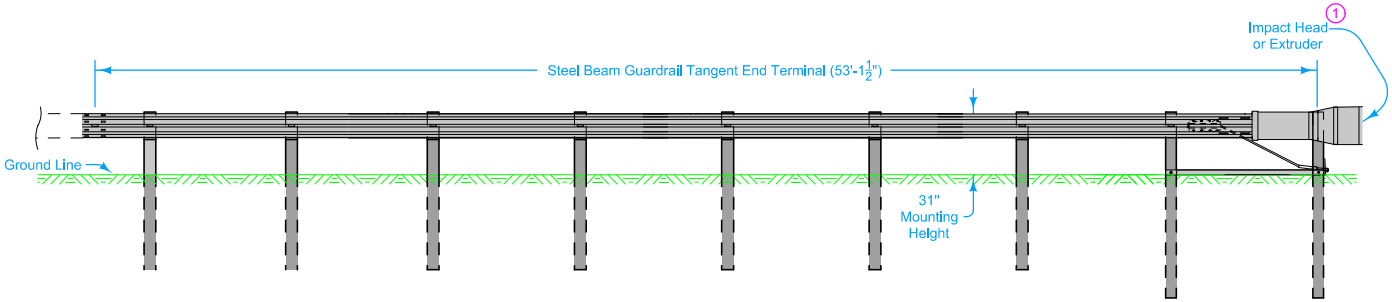
Local Systems

NO.	DATE	TITLE
LS-625	04-19-16	Steel Beam Guardrail Tangent End Terminal (NCHRP 350 TL-3)
LS-626	04-19-16	Steel Beam Guardrail Flared End Terminal (NCHRP 350 TL-3)
LS-630	10-18-16	Steel Beam Guardrail Installation At Concrete Barrier Or Bridge Rail End Section (NCHRP 350 TL-3)
LS-631	04-19-16	Steel Beam Guardrail Installation At Side Obstacle (Two-Way Protection)
LS-632	04-19-16	Steel Beam Guardrail Installation At Side Obstacle (One-Way Protection)
LS-633	04-19-16	Steel Beam Guardrail Installation At Railroad Signal
LS-635	10-18-16	Steel Beam Guardrail Installation At Concrete Barrier Or Bridge Rail End Section (MASH TL-2)

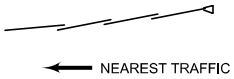
DESIGNER INFO



PLAN



ELEVATION



LAPPING PROCEDURE

Refer to Materials I.M. 455.02 for a list of approved sources.

Use materials meeting the respective manufacturer's specifications. Install end terminals according to the manufacturer's recommendations.

Note: at the Contractor's option, and at no additional cost to the Contracting Authority, alternate post designs developed by the manufacturer and accepted by the FHWA for use within the end terminal may be substituted for the post design shown. When such a substitution is made, provide the Engineer with three copies of the most current installation and maintenance manual for the alternate design.

1. Cover entire face of impact head or extruder with alternating black and yellow striped adhesive sheeting meeting the following requirements:

   - Stripes are approximately 3 inches wide and slope down at a 45 degree angle toward the side on which traffic is to pass the end terminal.

   - Yellow stripes meet the retroreflectivity requirements for Type III or Type IV reflective sheeting.

2. Refer to BA-200.

Possible Contract Item:
Steel Beam Guardrail Tangent End Terminal, LS-625

Possible Tabulations:
108-8A
108-8B
108-8C
108-8D

IOWA DOT

STANDARD ROAD PLAN

REVISION	
New	04-19-16

LS-625

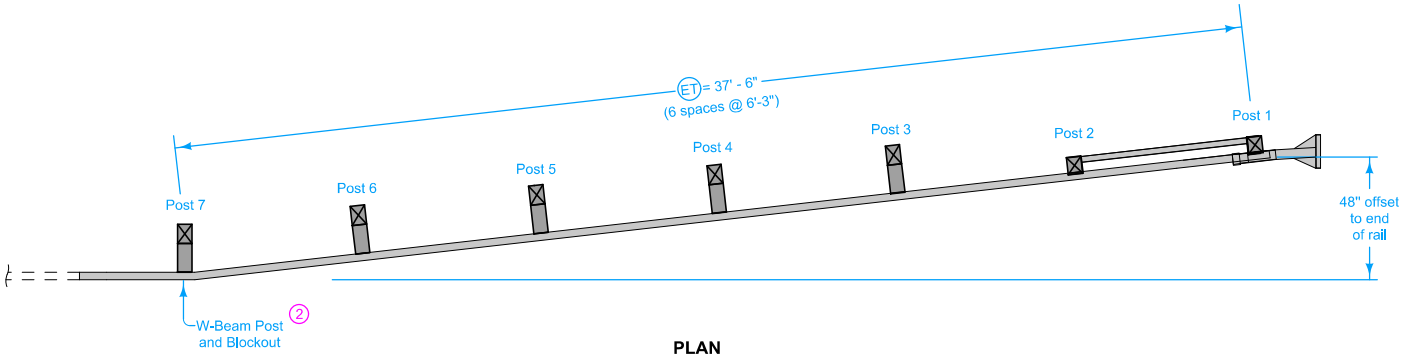
SHEET 1 of 1

REVISIONS: New. Previously published as BA-205. Changed standard note to reference I.M. 455.02 for approved sources.

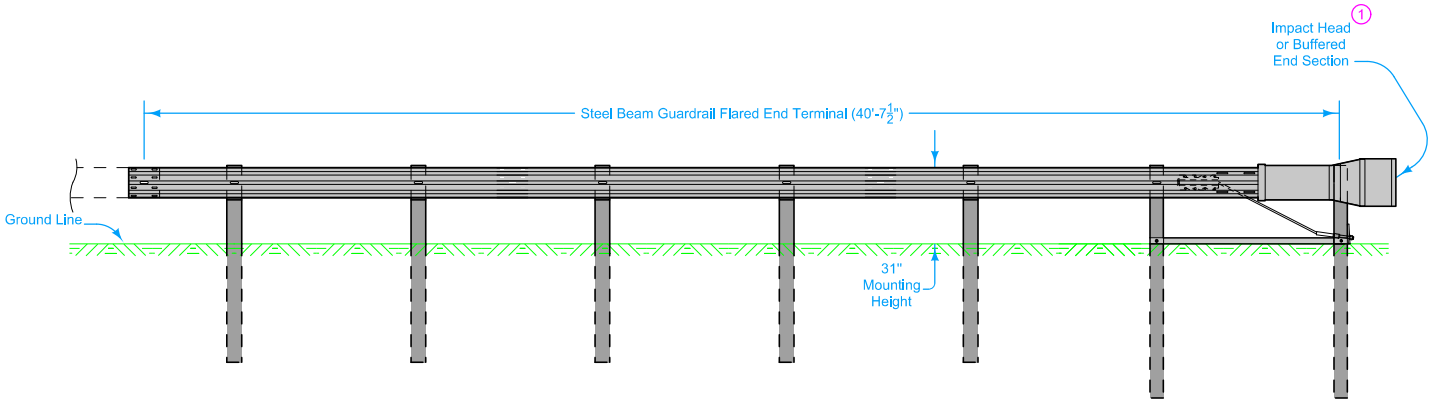
Brian Smith
APPROVED BY DESIGN METHODS ENGINEER

STEEL BEAM GUARDRAIL TANGENT END TERMINAL (NCHRP 350 TL-3)

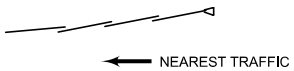
DESIGNER INFO



PLAN



ELEVATION



LAPPING PROCEDURE

Refer to Materials I.M. 455.02 for a list of approved sources.

Use materials meeting the respective manufacturer's specifications. Install end terminals according to the manufacturer's recommendations.

Note: at the Contractor's option, and at no additional cost to the Contracting Authority, alternate post designs developed by the manufacturer and accepted by the FHWA for use within the end terminal may be substituted for the post design shown. When such a substitution is made, provide the Engineer with three copies of the most current installation and maintenance manual for the alternate design.

1. Cover entire face of impact head or buffered end section with alternating black and yellow striped adhesive sheeting meeting the following requirements:

   -Stripes are approximately 3 inches wide and slope down at a 45 degree angle toward the side on which traffic is to pass the end terminal.

   -Yellow stripes meet the retroreflectivity requirements for Type III or Type IV reflective sheeting.

2. Refer to BA-200.

Possible Contract Item:
Steel Beam Guardrail Flared End Terminal, LS-626

Possible Tabulations:
108-8A
108-8B
108-8C

IOWA DOT

STANDARD ROAD PLAN

REVISION	
New	04-19-16

LS-626

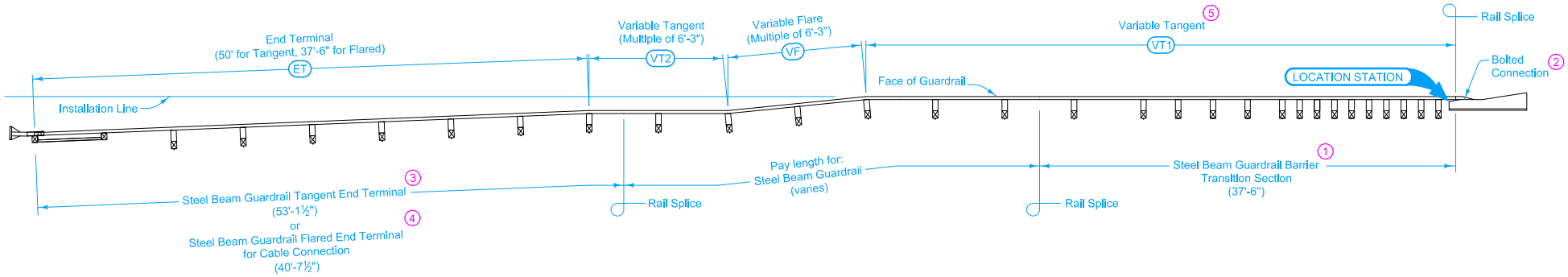
SHEET 1 of 1

REVISIONS: New. Previously published as BA-206. Changed standard note to reference I.M. 455.02 for approved sources.

Brian Smith
APPROVED BY DESIGN METHODS ENGINEER

STEEL BEAM GUARDRAIL FLARED END TERMINAL (NCHRP 350 TL-3)

DESIGNER INFO

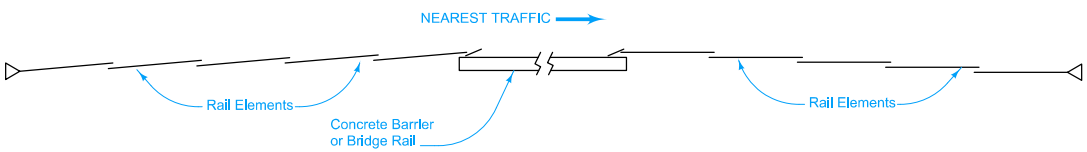


Install delineators and object markers according to SI-211.

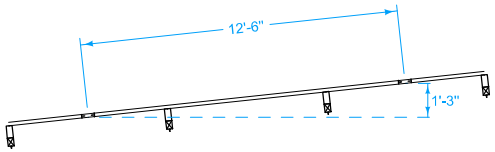
For grading requirements, see EW-301.

For general guardrail details, see BA-200.

1. See BA-201.
2. See BA-202 for connections to concrete barriers and bridge rail end sections.
3. See LS-625.
4. See LS-626.
5. Minimum VT1 of 40'-7½" if VF is not used. Minimum VT1 of 53'-1½" if VF is used.



LAPPING PROCEDURE



VARIABLE FLARE

Possible Contract Items:
- Steel Beam Guardrail
- Steel Beam Guardrail Barrier Transition Section, BA-201
- Steel Beam Guardrail End Anchor, Bolted
- Steel Beam Guardrail Flared End Terminal, LS-626
- Steel Beam Guardrail Tangent End Terminal, LS-625

Possible Tabulation:
108-8A

IOWA DOT

REVISION	
1	10-18-16

STANDARD ROAD PLAN

LS-630

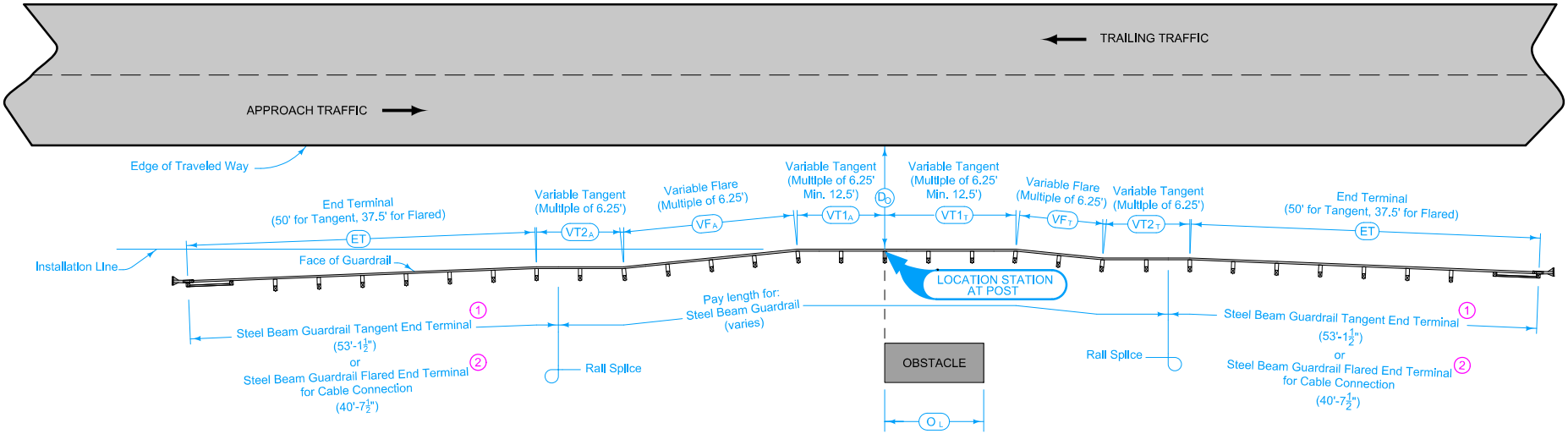
SHEET 1 of 1

REVISIONS: Added NCHRP 350 TL-3 designation to title. Changed Barrier Transition Section contract item to specify BA-201.

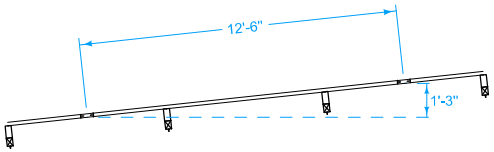
Brian Smith
APPROVED BY DESIGN METHODS ENGINEER

STEEL BEAM GUARDRAIL INSTALLATION AT CONCRETE BARRIER OR BRIDGE RAIL END SECTION (NCHRP 350 TL-3)

DESIGNER INFO



LAPPING PROCEDURE



VARIABLE FLARE

Install delineators and object markers according to SI-211.

For grading requirements, see EW-301.

For general guardrail details, see BA-200.

(1) See LS-625.

(2) See LS-626.

Possible Contract Items:
- Steel Beam Guardrail
- Steel Beam Guardrail Flared End Terminal, LS-626
- Steel Beam Guardrail Tangent End Terminal, LS-625

Possible Tabulation:
- 108-8B

IOWA DOT

STANDARD ROAD PLAN

REVISION	
New	04-19-16

LS-631

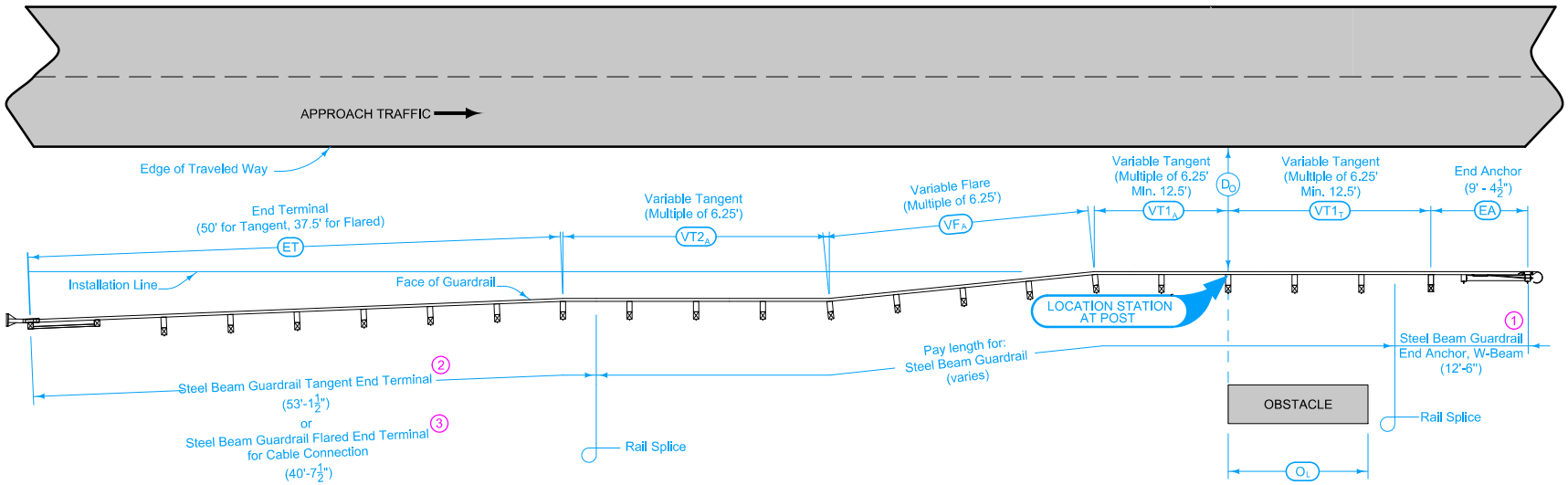
SHEET 1 of 1

REVISIONS: New. Previously published as BA-251. Increased VT1t min to 12.5'.

Brian Smith
APPROVED BY DESIGN METHODS ENGINEER

STEEL BEAM GUARDRAIL INSTALLATION AT SIDE OBSTACLE (TWO-WAY PROTECTION)

DESIGNER INFO



Install delineators and object markers according to SI-211.

For grading requirements, see EW-301.

For general guardrail details, see BA-200.

1 See BA-203.

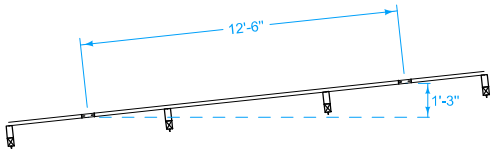
2 See LS-625.

3 See LS-626.

Possible Contract Items:
- Steel Beam Guardrail
- Steel Beam Guardrail End Anchor, W-Beam
- Steel Beam Guardrail Flared End Terminal, LS-626
- Steel Beam Guardrail Tangent End Terminal, LS-625

Possible Tabulation:
- 108-8C

LAPPING PROCEDURE



VARIABLE FLARE

IOWA DOT

STANDARD ROAD PLAN

REVISION	
New	04-19-16

LS-632

SHEET 1 of 1

REVISIONS: New. Previously published as BA-252. Increased VT1t min to 12.5'.

Brian Smith
APPROVED BY DESIGN METHODS ENGINEER

STEEL BEAM GUARDRAIL INSTALLATION AT SIDE OBSTACLE (ONE-WAY PROTECTION)

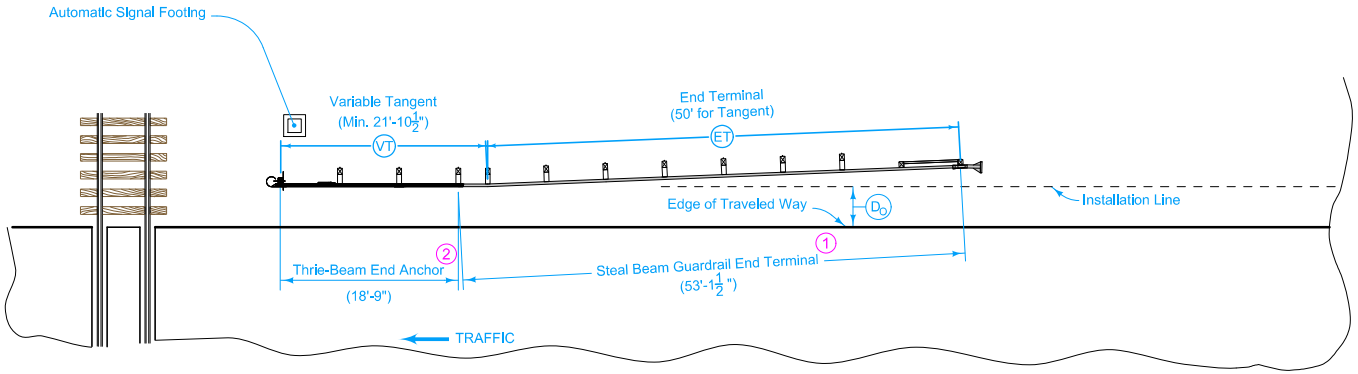
DESIGNER INFO

For grading requirements, refer to EW-301.

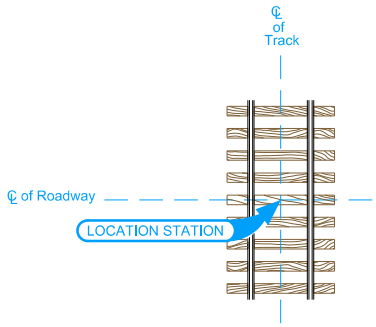
For additional guardrail requirements, refer to BA-200.

(1) Refer to LS-625.

(2) Refer to BA-204.



PLAN



LAPPING PROCEDURE

Possible Contract Items:
- Steel Beam Guardrail End Anchor, Thrie-Beam
- Steel Beam Guardrail Tangent End Terminal, LS-625

Incidental to Steel Beam Guardrail End Anchor, Thrie-Beam:
- Delineator, Rigid - Type I
- Object Marker, Type 2
- Object Marker, Type 3

Possible Tabulation:
- 108-8D

IOWA DOT

STANDARD ROAD PLAN

REVISION	
New	04-19-16

LS-633

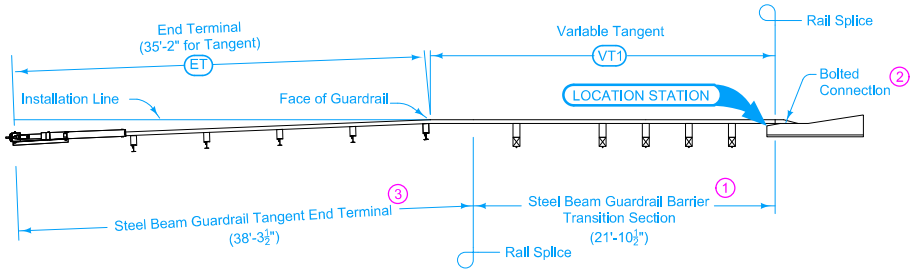
SHEET 1 of 1

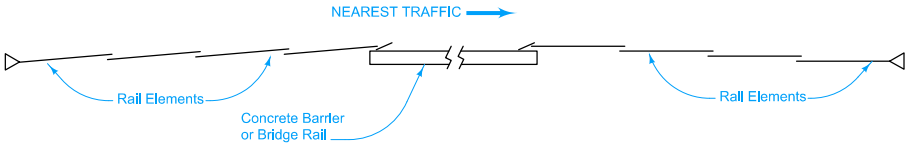
REVISIONS: New. Previously published as BA-253.

Brian Smith
APPROVED BY DESIGN METHODS ENGINEER

STEEL BEAM GUARDRAIL INSTALLATION AT RAILROAD SIGNAL

DESIGNER INFO





LAPPING PROCEDURE

Install delineators and object markers according to SI-211.

For grading requirements, see EW-301.

For general guardrail details, see BA-200.

1. See BA-221.
2. See BA-202 for connections to concrete barriers and bridge rail end sections.
3. See BA-225.

Possible Contract Items:
- Steel Beam Guardrail
- Steel Beam Guardrail Barrier Transition Section, BA-221
- Steel Beam Guardrail End Anchor, Bolted
- Steel Beam Guardrail Tangent End Terminal, BA-225

Possible Tabulation:
- 108-8A

IOWA DOT

STANDARD ROAD PLAN

REVISION	
NEW	10-18-16

LS-635

SHEET 1 of 1

REVISIONS: NEW

Brian Smith
APPROVED BY DESIGN METHODS ENGINEER

STEEL BEAM GUARDRAIL INSTALLATION AT CONCRETE BARRIER OR BRIDGE RAIL END SECTION (MASH TL-2)