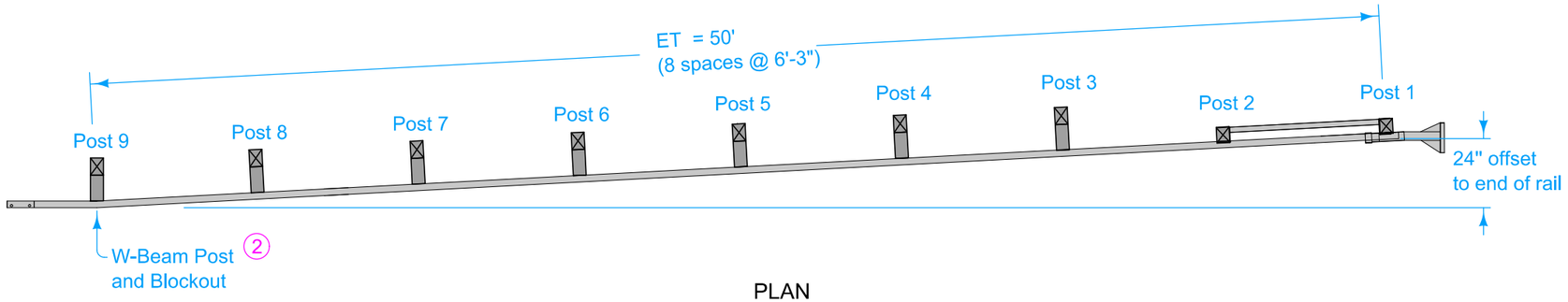
Local Systems

LS

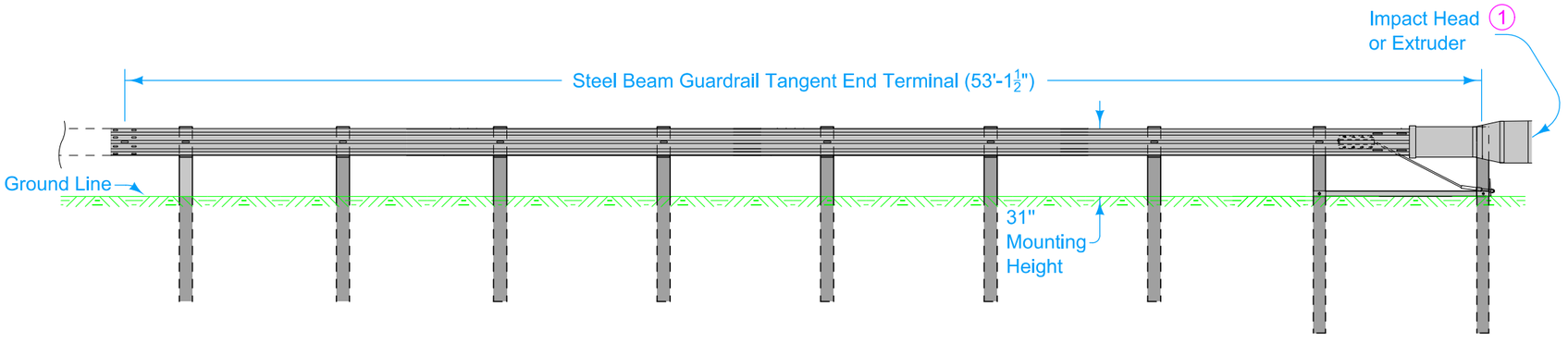
Local Systems

NO.	DATE	TITLE
LS-625	10-19-21	Steel Beam Guardrail Tangent End Terminal (NCHRP 350 TL-3)
LS-626	10-19-21	Steel Beam Guardrail Flared End Terminal (NCHRP 350 TL-3)
LS-630	10-19-21	Steel Beam Guardrail Installation At Concrete Barrier Or Bridge Rail End Section (NCHRP 350 TL-3)
LS-631	04-20-21	Steel Beam Guardrail Installation At Side Object (Two-Way Protection)
LS-632	04-20-21	Steel Beam Guardrail Installation At Side Object (One-Way Protection)
LS-633	04-19-16	Steel Beam Guardrail Installation At Railroad Signal
LS-635	10-18-22	Steel Beam Guardrail Installation At Concrete Barrier Or Bridge Rail End Section (MASH TL-2)

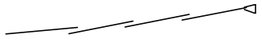
DESIGNER INFORMATION



PLAN



ELEVATION



NEAREST TRAFFIC

LAPPING PROCEDURE

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

With Engineer's approval, the Contractor may install the end terminal of BA-205.

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

Drive posts using a hammer driver. Ensure posts are not damaged during installation. Posts may be placed in prebored holes if site conditions are such that posts cannot be driven. Place backfill material consisting of material removed or other suitable soil around posts. Place the backfill material in lifts not exceeding 4 inches. Thoroughly compact each lift before the next lift is placed.

(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	
1	10-19-21

LS-625

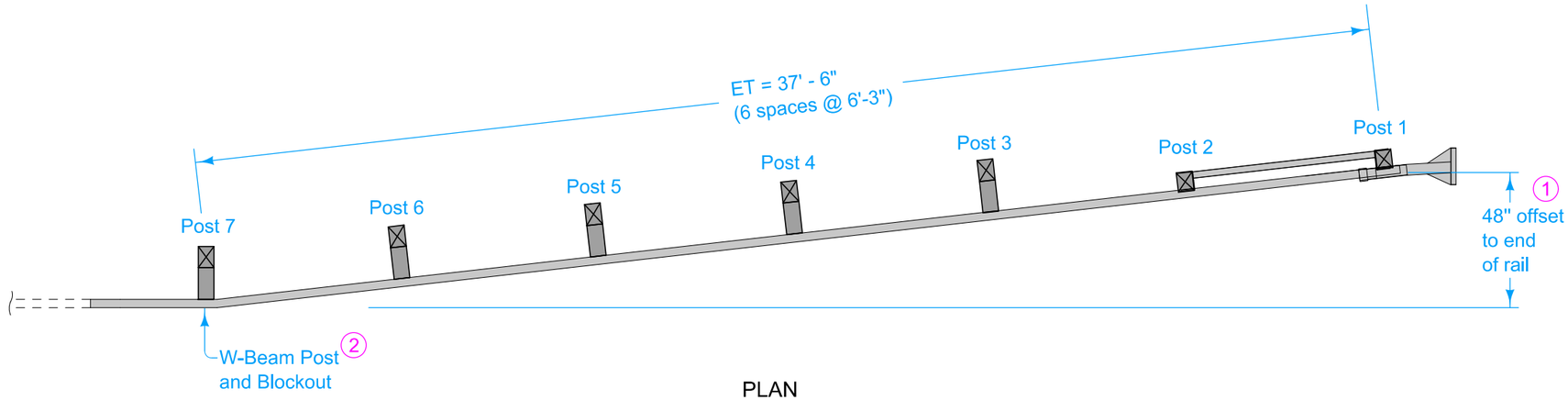
SHEET 1 of 1

REVISIONS: Removed note about alternate post design. Added note about driving posts. Added engineer's approval note.

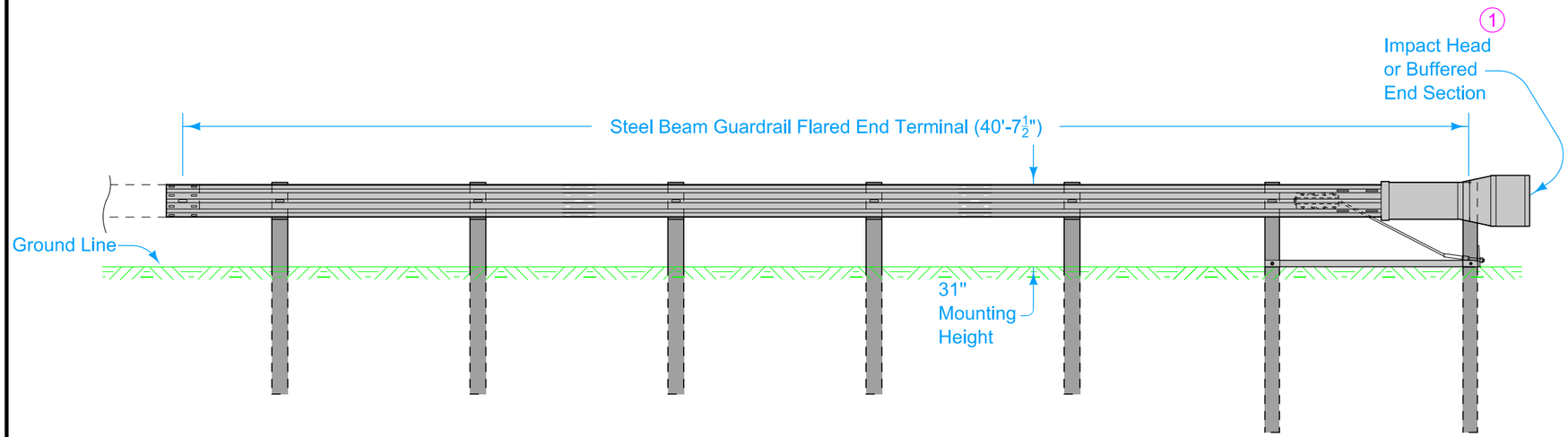
APPROVED BY DESIGN METHODS ENGINEER

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

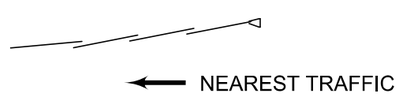
DESIGNER INFORMATION



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.

Drive posts using a hammer driver. Ensure posts are not damaged during installation. Posts may be placed in prebored holes if site conditions are such that posts cannot be driven. Place backfill material consisting of material removed or other suitable soil around posts. Place the backfill material in lifts not exceeding 4 inches. Thoroughly compact each lift before the next lift is placed.

(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	
1	10-19-21

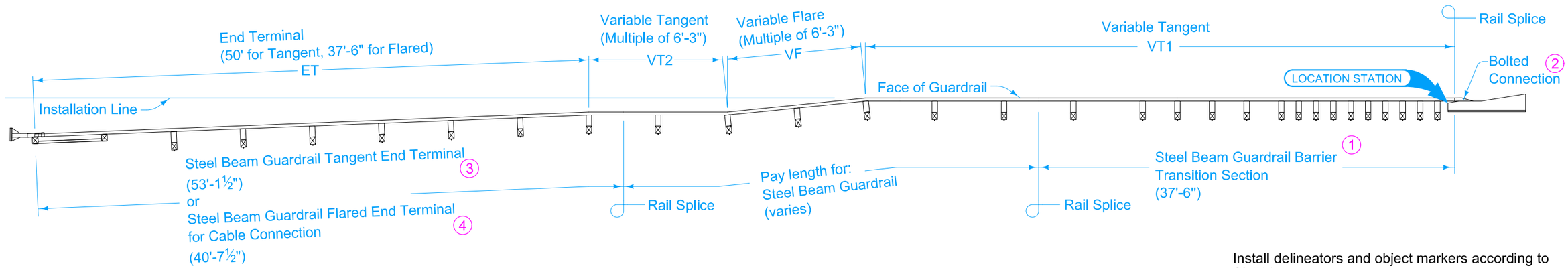
LS-626

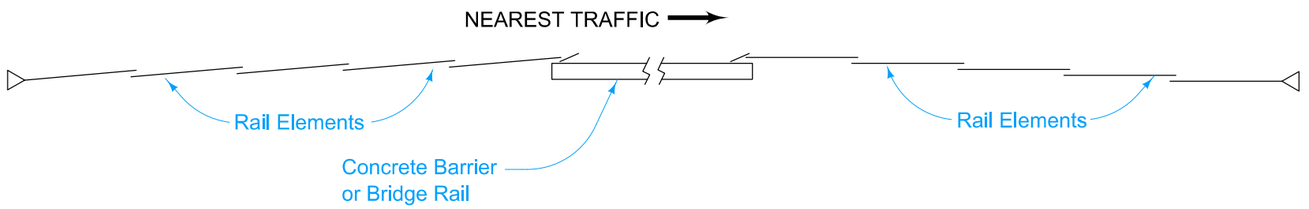
SHEET 1 of 1

REVISIONS: Removed note about alternate post design.
Added note about driving posts.

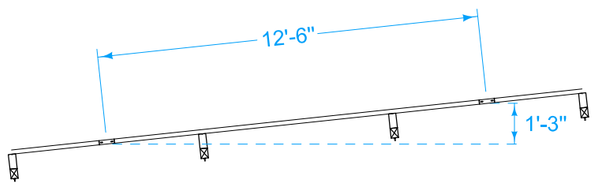
APPROVED BY DESIGN METHODS ENGINEER

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





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 BA-201.
2. See BA-202 for connections to concrete barriers and bridge rail end sections.
3. See LS-625.
4. See LS-626.

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

STANDARD ROAD PLAN

REVISION	
2	10-19-21

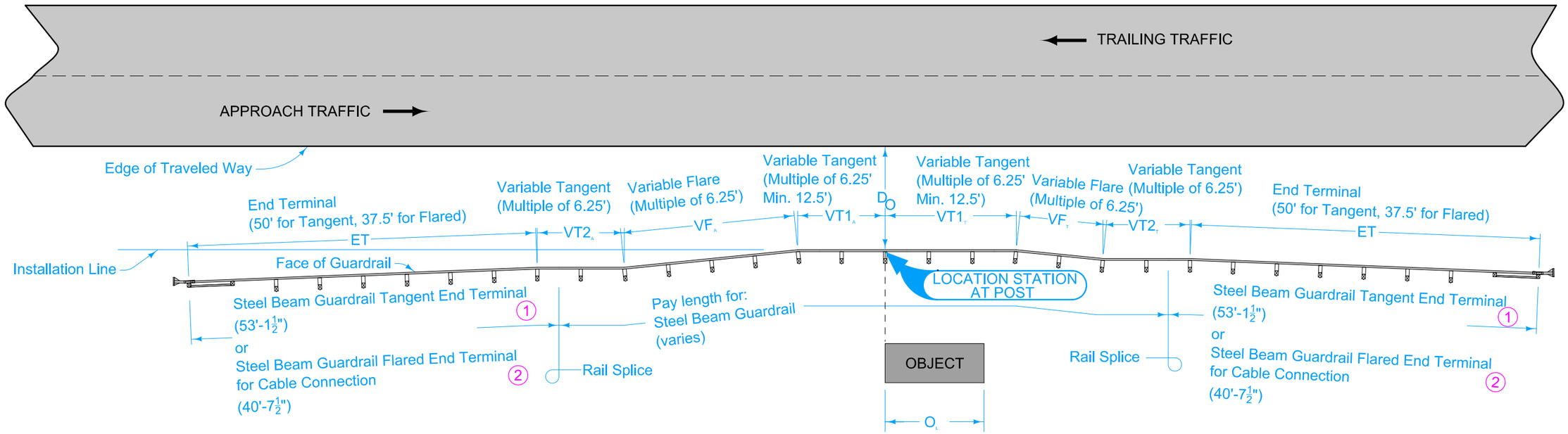
LS-630

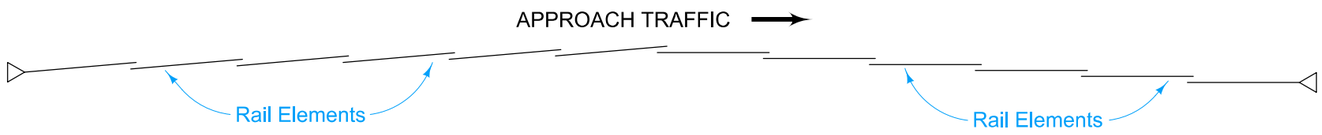
SHEET 1 of 1

REVISIONS: Removed circle note 5.

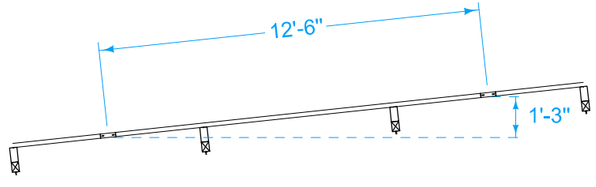
APPROVED BY DESIGN METHODS ENGINEER

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





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	
1	04-20-21

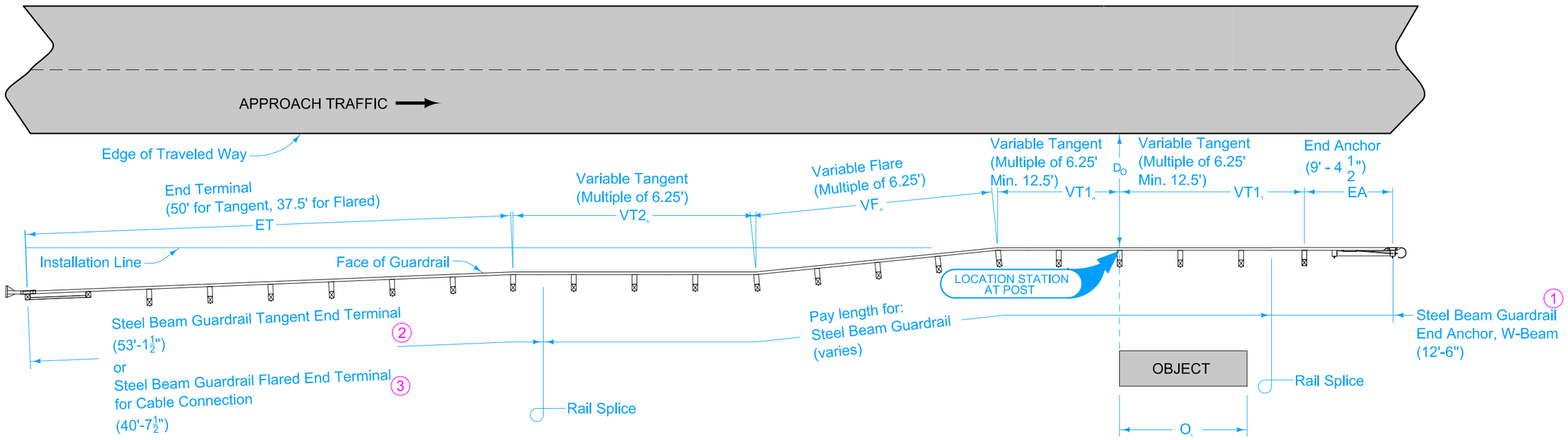
LS-631

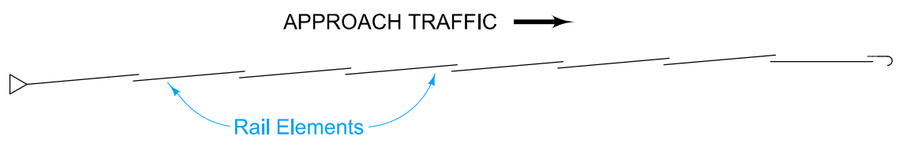
SHEET 1 of 1

REVISIONS: Changed Obstacle to Object.

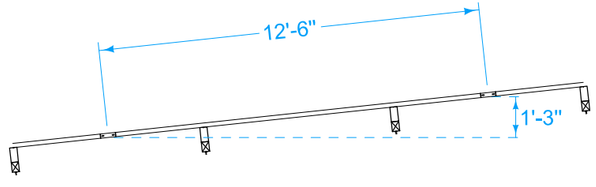
APPROVED BY DESIGN METHODS ENGINEER

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





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 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

IOWA DOT

STANDARD ROAD PLAN

REVISION	
1	04-20-21

LS-632

SHEET 1 of 1

REVISIONS: Changed Obstacle to Object.

APPROVED BY DESIGN METHODS ENGINEER

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

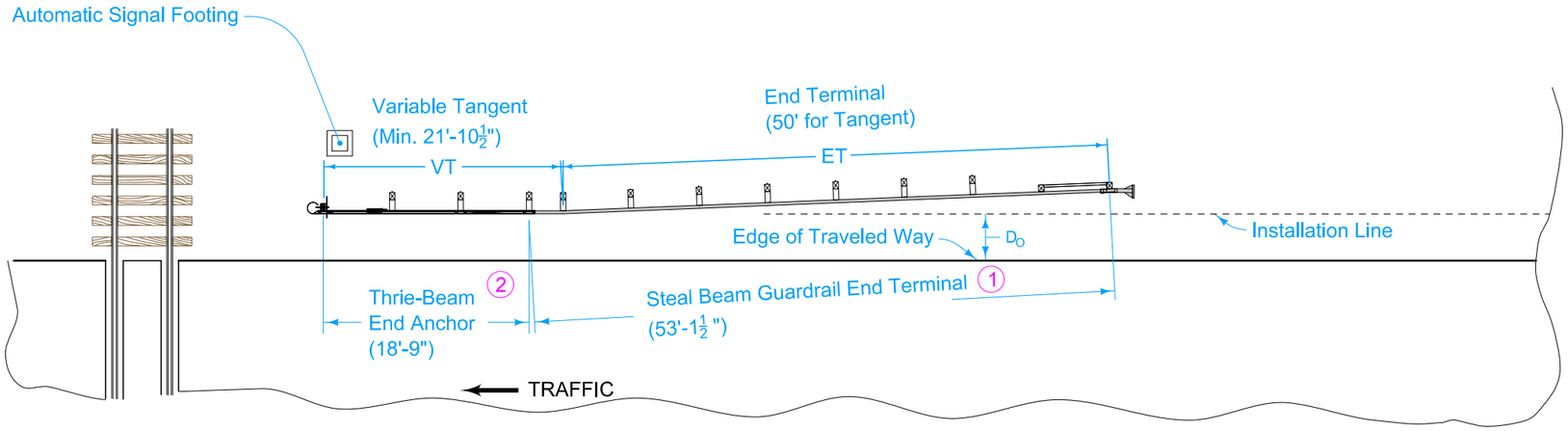
DESIGNER INFORMATION

For grading requirements, refer to EW-301.

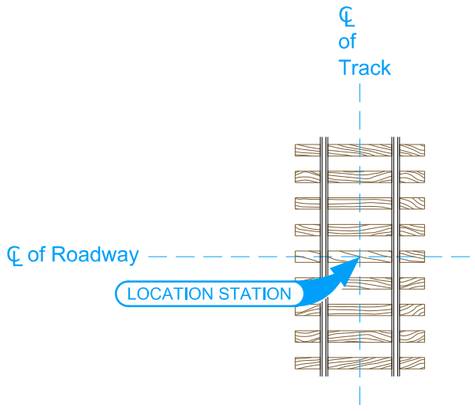
For additional guardrail requirements, refer to BA-200.

(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

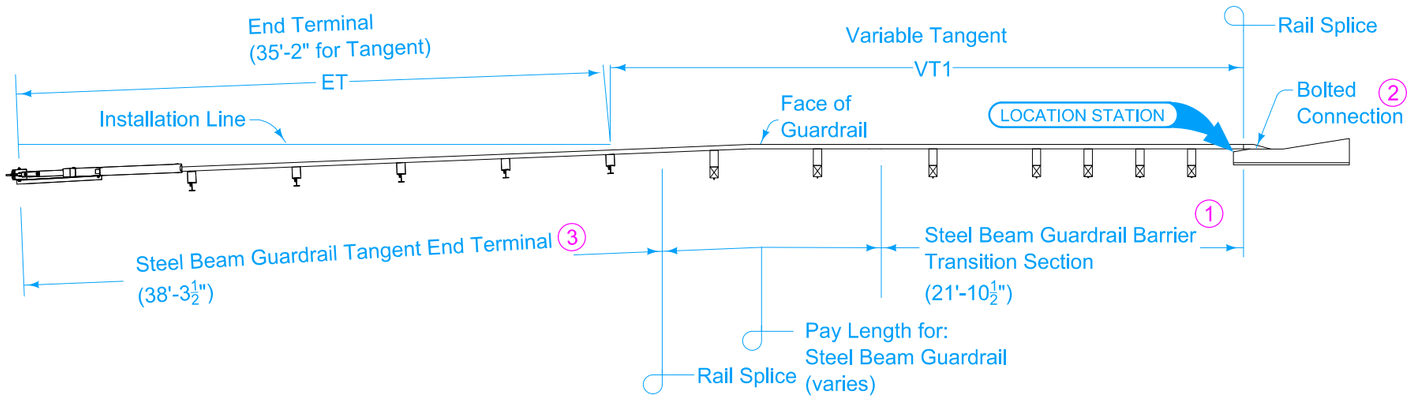
SHEET 1 of 1

REVISIONS: New. Previously published as BA-253.

APPROVED BY DESIGN METHODS ENGINEER

STEEL BEAM GUARDRAIL INSTALLATION AT RAILROAD SIGNAL

DESIGNER INFORMATION

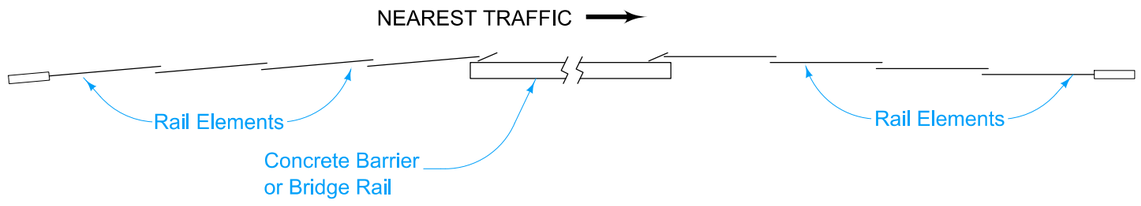


Install delineators and object markers according to SI-211.

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.



LAPPING PROCEDURE

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	
3	10-18-22

LS-635

SHEET 1 of 1

REVISIONS: Modified dimension lines.

APPROVED BY DESIGN METHODS ENGINEER

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